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ATMOSPHERIC STRUCTURE

WHITE SANDS MISSILE RANGE, NEW MEXICO

PART 3

UPPER AIR DATA: JALLEN SITE

ATMOSPHERIC SCIENCES RESEARCH OFFICE
WHITE SANDS MISSILE RANGE, NEW MEXICO

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ATMOSPHERIC STRUCTURE
WHITE SANDS MISSILE RANGE, NEW MEXICO

PART 3

UPPER AIR DATA: JALLEN SITE

By

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March 1969

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ATMOSPHERIC SCIENCES RESEARCH OFFICE
WHITE SANDS MISSILE RANGE, NEW MEXICO

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ATMOSPHERIC STRUCTURE

UPPER AIR DATA

JALLEN SITE

ABSTRACT

A statistical analysis of upper air data is presented for Jallen Site, White Sands Missile Range, New Mexico. Atmospheric parameters covered, for the layer 6,000 to 100,000 feet above mean sea level, are: wind, temperature, pressure, density, moisture, index of refraction, and freezing level. This climatological information is based on the period of observation from 1962-1967.

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INTRODUCTION

Activities of various projects on Range often necessitate a knowledge of upper air atmospheric conditions weeks or months in advance of the scheduled mission. As this exceeds the capability of the usual 24-56 hour forecast, or the longer five-day outlook, a statistical analysis of exoteric meteorological data is desirable. Missions at specific launch complexes frequently demand a detailed knowledge of conditions aloft for that particular area as opposed to data for the entire Range; for this reason an analysis will be presented for individual test sites.

This report presents the frequency of occurrence of the critical meteorological condition, mean and median values, and the extreme conditions classified by months and seasons, that can be expected from 6,000 to 100,000 feet above mean sea level (MSL) at Jallen Site, latitude 33° 11' north, longitude 106° 29' west, elevation 4,051 feet MST. The seven parameters so analyzed are wind, temperature, pressure, density, moisture, index of refraction, and freezing level. The statistical information is based on the observational period 1962-1967. Note should be made at this point that White Sands Missile Range (WSMR) radiosonde releases do not follow a routine schedule, but are taken at random depending upon the mission requirements for any given date (Table I).

Upper air data has been published for Holloman, Apache, White Sands Desert, Stallion, and Small Missile Range (Figure 1) (1,2,3, 4,5). Reports 1 and 2 in this series presented analyses of surface Range data for 'A' Station (6,7).

EXPLANATION OF TERMS

1. Winds Aloft

- A. Wind directions are given as the true direction from which the wind is blowing.
- B. Wind speeds are measured in knots (nautical miles per hour).

2. Standard Vector Deviation of the Wind (8)

The standard vector deviation of the wind is a measure of dispersion about the end of the mean resultant wind vector. A circle drawn with the center at the end of the mean resultant wind vector and a radius of the standard vector deviation includes 63 per cent of the vector winds.

$$\sigma^2 = \left[\frac{v^2}{N} - v_R^2 \right]$$

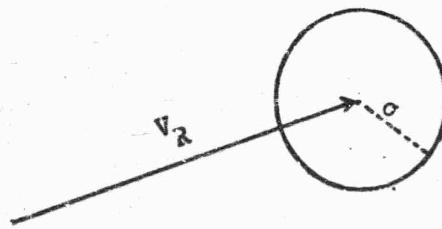
where,

σ = Standard vector deviation, knots

N = Number of cases

v_R = Speed of vector mean wind

v = Module of the vector wind



3. Constancy (8)

Constancy is a term used to show how constant the direction of the wind is. It is determined by dividing the mean scalar wind into the magnitude of the mean resultant wind.

$$Q = \frac{100 v_R}{v_S} \quad (\text{per cent})$$

EXPLANATION OF TERMS

3. Constancy (8)

where,

Q = Constancy of wind direction (per cent)

v_R = Module or speed of vector mean wind

v_S = Speed of scalar mean wind

The constancy of a set of winds is zero when they blow equally frequently from all directions, with the same average speed; the constancy is 100 when they blow from exactly the same direction, but not necessarily all with the same speed.

4. Density (9)

$$\rho_X = 348.43 \left[\frac{p}{K_{VX}} \right] \text{ grams/cubic meter}$$

$$K_{VX} = K \left[\frac{p}{p - 0.378e} \right] \left(\frac{7.5C}{C + 237.3} \right)$$

$$e = 0.0611 f 10$$

where,

ρ_X = Density, in grams/cubic meter

p = Pressure, in millibars

K_{VX} = Virtual temperature, in degrees Kelvin

e = Partial pressure of aqueous vapor, in millibars

C = Temperature, in degrees Celsius

K = $C + 273.16$, Temperature, Absolute, in degrees Kelvin

f = Relative humidity, in per cent

5. Index of Refraction (9)

$$n_X = 1 + \frac{77.6}{K} \left[p + e \left(\frac{4830}{K} - \frac{11}{77.6} \right) \right] \cdot 10^{-6}$$

EXPLANATION OF TERMS

5. Index of Refraction (9)

$$n_x = \frac{7.5C}{C + 237.3}$$

e = 0.0611 f 10

where,

n_x = Index of refraction, dimensionless

K = C + 273.16, Temperature, Absolute, in degrees Kelvin

C = Temperature, in degrees Celsius

p = Pressure, in millibars

f = Relative humidity, in per cent

e = Partial pressure of aqueous vapor, in millibars

6. Mixing Ratio (10,11)

In a system of moist air, the dimensionless ratio of the mass of water vapor to the mass of dry air.

$$\omega = \frac{0.622e}{p - e} \times 10^3$$

where,

ω = Mixing ratio, grams/kilogram

p = Pressure, in millibars

e = Partial pressure of aqueous vapor, in millibars

$$e = r e_s$$

where,

r = Relative humidity, in per cent

e_s = Saturation vapor pressure, in millibars

EXPLANATION OF TERMS

6. Mixing Ratio (10,11)

$$\log_{10} e_s = -7.90298 \left[\frac{T_s}{T} - 1 \right] + 5.02808 \log_{10} \left(\frac{T_s}{T} \right) - 1.3816 \times 10^{-7}$$
$$\left[10^{11.344} \left(1 - \frac{T}{T_s} \right) - 1 \right] + 8.1328 \times 10^{-3} \left[10^{-3.49149} \left(\frac{T_s}{T} - 1 \right) - 1 \right] + \log_{10} e_{w_3}$$

where,

T = Dry bulb temperature, in degrees Kelvin

T_s = Steam point temperature, 373.16 degrees Kelvin

e_{w_3} = Saturation pressure of pure ordinary liquid water at steam point temperature (T_s), 1013.246 millibars

7. Precipitable Water (10,11)

Precipitable water is defined as the total atmospheric water vapor contained in a vertical column of unit cross-sectional area extending between any two specified levels. It may be expressed as the height to which that water substance would stand if completely condensed and collected in a vessel of the same unit cross section.

Mathematically,

$$W = \frac{1}{g} \int_{p_1}^{p_2} \omega dp$$

where,

W = Precipitable water vapor, centimeters

ω = Mixing ratio, grams/kilogram

p = Pressure, bounded by p_1 and p_2 , millibars

g = Acceleration of gravity, centimeters per sec²

If g is expressed in cm sec⁻², p in millibars, and ω in g kg⁻¹, then W is in centimeters. With these units, the above equation may be written as:

$$W_{(cm)} = 0.001 \int_{p_1}^{p_2} \omega dp$$

EXPLANATION OF TERMS

7. Precipitable Water (10,11)

To determine the precipitable water within the various layers, the preceding equation will be numerically integrated. Since the mixing ratio, w , may be expressed as

$$w = \frac{0.622e}{p - e}$$

it is seen that

$$W(\text{cm}) = 0.622 \int_{P_1}^{P_2} \frac{e}{p - e} dp$$

where e and p are expressed in millibars. Note that a factor of 10^3 has been introduced to compensate for units.

ACCURACY OF DATA

The standard accuracies (12) of the instrumentation and the derived data are as follows:

Parameter	Operating Range	Accuracy (Root Mean Square)
TEMPERATURE		
AN/GMD-1 (AMT-4, AMT-12)	Surface - 120,000 Feet	0.7° Celsius (from -90°C to +60°C)
AN/GMD-2 (AMQ-9)	Surface - 120,000 Feet	0.7° Celsius
RELATIVE HUMIDITY		
AN/GMD-1 (carbon element)	$T > 0^\circ$ Celsius	5 per cent
AN/GMD-2	$0^\circ \geq T \geq -40^\circ$ Celsius	10 per cent
	$T < -40^\circ$ Celsius	Questionable
PRESSURE (computer processed)		
AN/GMD-1	10,000 Feet	0.7 Millibar
AN/GMD-2	20,000 Feet	1.0 Millibar
	30,000 Feet	1.2 Millibars
	40,000 Feet	1.0 Millibar
	50,000 Feet	0.7 Millibar
	60,000 Feet	0.55 Millibar
	70,000 Feet	0.40 Millibar
	80,000 Feet	0.30 Millibar
	90,000 Feet	0.20 Millibar
	100,000 Feet	0.12 Millibar
		hygro- meter equipped sonde for GMD-1

ACCURACY OF DATA

DENSITY

AN/GMD-1	10,000 Feet	0.3 Per cent
AN/GMD-2	20,000 Feet	0.3 Per cent
	30,000 Feet	0.4 Per cent
	40,000 Feet	0.5 Per cent
	50,000 Feet	0.6 Per cent
	60,000 Feet	0.7 Per cent
	70,000 Feet	0.8 Per cent
	80,000 Feet	0.9 Per cent
	90,000 Feet	1.0 Per cent
	100,000 Feet	1.2 Per cent

INDEX OF REFRACTION

AN/GMD-1; AN/GMD-2	5,000 Feet	2.6 Per cent
	15,000 Feet	1.7 Per cent
	25,000 Feet	0.6 Per cent
	30,000 Feet	0.5 Per cent

WIND

AN/GMD-1

AN/GMD-2 (considered to
be more reliable than
GMD-1 in mean wind
speeds > 50 knots)

Note: Accuracies are
averages over a 1
minute interval to
45,000 feet, 2
minute intervals at
higher altitudes and
4 minutes for certain
elevation angles.

If the magnitude of the
mean wind vector from the
surface to the level in
question is:

	Knots		
<30	30-60	60-90	
3	7	15	
4	14	30	
The RMS (Vector) 6	21	45	
in knots is: 8	28	--	
10	35	--	
12	42	--	

ACCURACY OF DATA

Manual and computer verification techniques were employed to insure the highest degree of accuracy of input data for this analysis.

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SECTION I

UPPER AIR WIND DATA

A. By Months

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(In Per Cent) ----- 24
3. Relative Frequency Distribution of Upper Air Scalar Wind Speeds at Selected Levels
(In Per Cent) ----- 36

B. By Seasons

1. Upper Air Wind Data at Selected Levels ----- 48
2. Relative Frequency Distribution of Upper Air Wind Directions at Selected Levels
(In Per Cent) ----- 52
3. Relative Frequency Distribution of Upper Air Scalar Wind Speeds at Selected Levels
(In Per Cent) ----- 56

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JANUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)	VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTU DEVIAT (KNOT)
		+N	-S	+E	-W				
6000.	118.	29.	0.	1.4	-4.7	286.	5.	10.	10.
8000.	117.	39.	3.	2.8	-10.4	285.	11.	16.	15.
10000.	117.	47.	2.	5.9	-14.7	292.	16.	22.	18.
12000.	116.	57.	3.	7.9	-17.6	294.	19.	26.	21.
14000.	116.	62.	2.	9.0	-20.4	294.	22.	30.	24.
15000.	116.	72.	3.	9.4	-21.6	294.	24.	32.	26.
16000.	116.	90.	4.	9.9	-23.0	293.	25.	34.	27.
18000.	116.	102.	5.	10.6	-25.5	293.	28.	38.	31.
20000.	115.	104.	2.	10.8	-27.2	292.	29.	41.	34.
25000.	115.	140.	5.	11.8	-32.6	290.	35.	50.	43.
30000.	109.	120.	2.	11.5	-36.6	287.	38.	55.	47.
35000.	103.	117.	12.	9.5	-44.8	282.	46.	60.	47.
40000.	102.	118.	4.	6.1	-49.7	277.	50.	60.	42.
45000.	95.	107.	7.	3.2	-50.4	274.	50.	57.	35.
50000.	84.	94.	15.	1.8	-50.5	272.	51.	55.	92.
55000.	69.	97.	6.	-0.8	-39.4	269.	39.	43.	93.
60000.	56.	83.	4.	-2.2	-21.8	276.	22.	25.	88.
65000.	50.	49.	0.	1.6	-15.9	276.	16.	20.	80.
70000.	44.	39.	1.	3.8	-9.9	291.	11.	16.	67.
75000.	38.	47.	3.	2.9	-6.4	295.	7.	13.	52.
80000.	37.	73.	2.	3.0	-9.7	287.	10.	17.	61.
85000.	35.	75.	2.	2.9	-11.1	285.	11.	18.	64.
90000.	31.	86.	5.	0.7	-15.9	272.	16.	22.	72.
95000.	23.	72.	1.	-4.5	-21.0	258.	22.	28.	24.
100000.	15.	104.	6.	-8.9	-30.1	253.	31.	35.	30.

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

FEBRUARY

GEOMETRIC ALTITUDE HSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)			VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTOR DEVIAT (KNOTS)
					+N	-S	+E				
6000-	112-	28-	0-	1-1	-3-3	289-	3-	9-	10-	59-	13-
8000-	112-	42-	1-	2-3	-7-5	287-	8-	13-	73-	15-	17-
10000-	111-	54-	2-	4-3	-11-7	290-	12-	17-	77-	19-	23-
12000-	111-	60-	3-	6-4	-16-3	292-	18-	23-	78-	22-	28-
14000-	111-	59-	3-	6-9	-20-7	288-	22-	28-	78-	23-	30-
15000-	110-	76-	4-	7-6	-22-3	289-	24-	30-	77-	25-	32-
16000-	111-	83-	5-	8-0	-23-6	289-	25-	32-	76-	28-	35-
18000-	110-	70-	7-	8-6	-25-5	289-	27-	38-	74-	31-	40-
20000-	110-	74-	7-	8-6	-28-2	287-	30-	40-	76-	39-	44-
25000-	107-	113-	9-	8-1	-36-3	283-	37-	49-	77-	44-	58-
30000-	105-	118-	5-	7-2	-44-0	279-	45-	58-	61-	46-	62-
35000-	100-	128-	9-	9-3	-49-1	281-	50-	62-	88-	39-	62-
40000-	93-	132-	5-	5-7	-54-3	276-	55-	65-	90-	34-	58-
45000-	90-	118-	8-	2-9	-52-2	273-	52-	52-	91-	27-	52-
50000-	75-	95-	9-	4-6	-46-9	276-	47-	52-	88-	25-	35-
55000-	64-	83-	8-	3-7	-35-0	276-	35-	40-	89-	19-	40-
60000-	58-	70-	5-	3-3	-22-6	278-	23-	26-	76-	20-	22-
65000-	56-	78-	3-	1-9	-16-5	277-	17-	22-	57-	17-	17-
70000-	54-	59-	5-	1-2	-9-6	277-	10-	17-	57-	17-	17-
75000-	50-	45-	1-	0-3	-10-8	272-	11-	19-	57-	18-	26-
80000-	47-	58-	4-	-2-4	-10-4	257-	11-	22-	49-	23-	25-
85000-	43-	56-	3-	-3-0	-10-4	254-	11-	24-	45-	28-	28-
90000-	38-	55-	4-	-2-2	-7-4	254-	8-	26-	30-	37-	33-
95000-	30-	53-	3-	-2-1	-9-2	257-	9-	25-	30-	30-	30-
100000-	25-	55-	3-	-6-4	-6-4	293-	7-	24-	33-	33-	33-

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JALA)
PERIOD OF RECORD 1962-1967

MARCH

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)	SCALAR MEAN SPEED (KNOTS)	CONSTANT (PERCENT)	STANDARD VECTOR DEVIATION (KNOTS)
6000.	161.	30.	1.	-3.5	219.	5.	53.	9.
8000.	161.	33.	1.	-2.9	248.	8.	65.	11.
10000.	160.	46.	2.	-1.7	262.	12.	73.	14.
12000.	158.	52.	2.	-1.0	266.	16.	77.	18.
14000.	158.	60.	4.	-0.8	268.	21.	80.	21.
15000.	155.	64.	4.	-0.4	222.5	23.	82.	21.
16000.	159.	78.	3.	-1.0	24.1	26.	30.	23.
18000.	158.	90.	0.	-1.1	26.7	27.	33.	25.
20000.	157.	99.	9.	-2.1	30.1	30.	37.	28.
25000.	152.	110.	0.	-2.5	37.7	35.	47.	37.
30000.	154.	134.	0.	-4.2	47.3	47.	59.	46.
35000.	147.	160.	10.	-3.2	56.1	56.	68.	50.
40000.	145.	170.	4.	-3.4	58.6	59.	66.	42.
45000.	132.	156.	3.	-5.3	55.6	56.	59.	32.
50000.	129.	116.	11.	-4.3	51.0	51.	54.	26.
55000.	112.	105.	0.	-2.7	40.1	40.	43.	23.
60000.	102.	96.	0.	-1.7	25.5	26.	30.	24.
65000.	88.	83.	0.	-0.8	19.6	20.	23.	21.
70000.	85.	78.	0.	-2.0	11.0	11.	16.	17.
75000.	70.	73.	0.	-1.3	13.4	14.	18.	17.
80000.	57.	73.	0.	-1.1	17.4	17.	20.	19.
85000.	47.	62.	2.	-2.1	17.6	18.	20.	15.
90000.	43.	63.	6.	-0.0	27.0.	23.	25.	17.
95000.	39.	86.	5.	-1.2	25.7	26.	28.	18.
100000.	29.	115.	0.	-3.6	26.4.	34.	37.	26.

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JALA)
PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT VECTOR DIRECTION (DEGREES)	MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY	STANDARD VECTOR DEVIATION (KNOTS)		
								-N	-S	+E	-W
6000-	139-	31.	1.	-4.3	220.	6.	51.	12.	14.	16.	14.
8000-	137-	41.	2.	-4.2	241.	9.	63.	16.	19.	16.	16.
10000-	137-	54.	2.	-6.0	249.	14.	74.	19.	19.	16.	16.
12000-	137-	67.	2.	-5.6	249.	19.	79.	19.	24.	19.	19.
14000-	137-	69.	2.	-6.7	253.	19.	81.	22.	24.	19.	19.
15000-	136-	67.	3.	-7.1	253.	24.	82.	24.	24.	19.	19.
16000-	136-	72.	5.	-7.5	254.	26.	82.	25.	25.	19.	19.
18000-	137-	88.	4.	-7.6	255.	26.	83.	25.	25.	19.	19.
20000-	137-	97.	5.	-8.6	256.	22.	83.	27.	27.	19.	19.
25000-	136-	106.	3.	-11.6	256.	35.	84.	29.	29.	33.	33.
30000-	135-	126.	1.1.	-14.7	254.	42.	85.	33.	33.	40.	40.
35000-	129.-	145.	1.6.	-16.0	254.	51.	85.	33.	33.	45.	45.
40000-	124-	149.	1.0.	-18.6	256.	57.	84.	33.	33.	45.	45.
45000-	115-	130.	0.	-18.2	250.	59.	85.	33.	33.	45.	45.
50000-	109-	94.	0.	-15.5	251.	52.	86.	33.	33.	45.	45.
55000-	101-	88.	0.	-16.0	254.	49.	86.	33.	33.	45.	45.
60000-	92-	57.	0.	-18.6	252.	67.	87.	33.	33.	45.	45.
65000-	84-	40.	2.	-18.2	250.	53.	89.	33.	33.	45.	45.
70000-	81-	51.	2.	-15.5	251.	52.	86.	33.	33.	45.	45.
75000-	78-	41.	1.	-11.2	253.	42.	91.	25.	25.	45.	45.
80000-	75-	46.	1.	-6.5	249.	18.	92.	21.	21.	13.	13.
85000-	70-	38.	2.	-2.3	246.	6.	93.	13.	13.	13.	13.
90000-	65-	44.	2.	-2.0	147.	2.	94.	13.	13.	13.	13.
95000-	57-	44.	0.	-1.6	139.	2.	95.	13.	13.	13.	13.
100000-	41-	52.	0.	-1.4	171.	2.	96.	13.	13.	13.	13.
				-2.7	171.	3.	97.	13.	13.	13.	13.
				-3.2	229.	5.	98.	13.	13.	13.	13.
				-3.0	249.	6.	99.	13.	13.	13.	13.
				-3.3	250.	10.	100.	13.	13.	13.	13.
				-5.7	250.	16.	101.	13.	13.	13.	13.
				-15.4			102.	13.	13.	13.	13.
				-5.7			103.	13.	13.	13.	13.

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JALA)
PERIOD OF RECORD 1962-1967

MAY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)			SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDOFF VECTOR DEVIATI- ON (KNOTS)
			+N	-S	+E			
6000.	128.	32.	0.	-3.6	-72.0	209.	9.	10.
8000.	126.	37.	1.	-4.6	-5.4	220.	7.	10.
10000.	125.	36.	1.	-4.5	-8.3	243.	13.	11.
12000.	124.	52.	1.	-5.5	-12.0	134.	17.	14.
14000.	124.	69.	3.	-7.0	-15.1	245.	17.	18.
15000.	121.	73.	2.	-7.8	-16.8	245.	19.	20.
16000.	121.	72.	1.	-8.4	-18.6	246.	20.	20.
18000.	120.	81.	1.	-9.0	-22.1	248.	28.	21.
20000.	120.	92.	2.	-8.4	-25.1	251.	31.	23.
25000.	119.	109.	4.	-8.7	-31.3	254.	32.	28.
30000.	121.	131.	0.	-10.2	-36.1	254.	38.	31.
35000.	114.	132.	4.	-9.5	-44.9	258.	46.	34.
40000.	115.	146.	0.	-8.7	-50.5	261.	52.	35.
45000.	103.	109.	0.	-7.7	-66.5	261.	47.	28.
50000.	100.	103.	-3.	-6.9	-39.5	263.	49.	23.
55000.	68.	67.	0.	-3.6	-21.3	260.	22.	18.
60000.	94.	55.	1.	-4.8	-8.7	258.	9.	13.
65000.	91.	35.	0.	0.8	-1.1	309.	1.	10.
70000.	90.	40.	0.	-0.4	6.2	93.	4.	15.
75000.	81.	41.	2.	-0.0	5.3	90.	5.	10.
80000.	78.	52.	0.	-1.7	5.6	108.	5.	11.
85000.	73.	30.	2.	-1.3	5.4	109.	2.	14.
90000.	71.	44.	0.	-1.1	4.5	126.	2.	13.
95000.	64.	34.	0.	-2.2	1.1	153.	2.	12.
100000.	51.	27.	0.	-1.7	-0.3	190.	2.	14.

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1963

JUNE

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREESA)			CONSTANCY (PERCENTA)	SCALAR MEAN SPEED (KNOTS)	STANDAR VECTOU DEVIAT 1 KNOT.
				+N	-S	+E			
6000-	127-	31-	-5.7	-2.3	202-	9-	9-	14-	10.
3000-	127-	35-	-6.8	-5.2	218-	10-	10-	13-	75-
10000-	127-	39-	-6.7	-7.5	228-	12-	12-	13-	77-
12000-	128-	39-	-7.0	-9.2	253-	15-	15-	14-	76-
14000-	127-	45-	-8.1	-9.9	234-	18-	18-	18-	72-
15000-	126-	49-	-9.0	-10.3	229-	14-	14-	17-	73-
16000-	126-	49-	-9.5	-11.6	234-	15-	15-	18-	75-
18000-	125-	56-	-9.6	-13.6	235-	17-	17-	19-	76-
20000-	125-	61-	-9.4	-15.9	239-	18-	18-	20-	79-
25000-	124-	71-	-8.3	-19.9	247-	22-	22-	24-	81-
30000-	120-	80-	-10.0	-26.2	249-	28-	28-	33-	85-
35000-	114-	93-	-12.2	-33.9	250-	36-	36-	42-	86-
40000-	115-	116-	-10.3	-41.6	256-	43-	43-	49-	88-
45000-	112-	106-	-10.4	-40.1	255-	41-	41-	46-	89-
50000-	105-	70-	-9.5	-28.4	252-	30-	30-	34-	89-
55000-	99-	56-	-6.2	-10.5	240-	12-	12-	17-	76-
60000-	97-	30-	-4.4	-4.8	133-	6-	6-	12-	53-
65000-	95-	23-	-2.9	10.3	106-	11-	11-	13-	85-
70000-	32-	41-	-1.0	13.0	95-	12-	12-	15-	90-
75000-	89-	39-	-0.8	17.7	92-	18-	18-	18-	97-
80000-	79-	43-	-2.9	18.7	99-	19-	19-	20-	97-
85000-	74-	36-	-1.1	18.7	93-	19-	19-	20-	93-
90000-	66-	39-	-1.0	21.2	93-	22-	22-	22-	96-
95000-	59-	42-	-1.4	23.2	93-	23-	23-	24-	96-
100000-	54-	47-	-3.3	26.0	97-	26-	26-	27-	98-

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JALA)
PERIOD OF RECORD 1962-1967

JULY

GEOMETRIC ALTITUDE IN FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)	MEAN SPEED (KNOTS)	SCALAR CONSTANCY (PERCENT)	STANDARD VECTOR DEVIATION (KNOTS)
+N	-S	+E	-W					
6000.	149.	21.	0.	-2.1	0.6	164.	36.	7.
8000.	149.	26.	0.	-2.8	-0.6	192.	41.	8.
10000.	149.	19.	0.	-2.2	-0.4	190.	32.	8.
12000.	149.	22.	0.	-1.9	1.2	147.	28.	9.
14000.	149.	29.	1.	-2.0	2.5	129.	34.	10.
15000.	141.	29.	1.	-2.3	3.1	126.	39.	10.
16000.	149.	26.	0.	-2.3	3.5	123.	42.	10.
18000.	148.	28.	1.	-2.4	3.6	124.	44.	10.
20000.	147.	31.	2.	-3.7	2.7	146.	5.	11.
25000.	139.	32.	1.	-5.5	1.8	161.	6.	12.
30000.	145.	37.	1.	-6.5	2.0	163.	7.	14.
35000.	133.	43.	2.	-8.0	1.8	167.	8.	17.
40000.	137.	44.	2.	-7.6	2.5	162.	8.	18.
45000.	121.	49.	1.	-6.7	3.0	156.	7.	18.
50000.	118.	46.	1.	-5.5	5.4	135.	8.	17.
55000.	104.	35.	3.	-5.5	9.0	121.	11.	13.
60000.	102.	32.	2.	-3.1	13.4	103.	14.	15.
65000.	91.	34.	6.	-2.1	17.9	97.	18.	19.
70000.	89.	37.	8.	-1.4	21.2	94.	21.	22.
75000.	81.	42.	11.	-0.7	24.6	92.	25.	25.
80000.	81.	45.	14.	-0.5	28.2	91.	28.	29.
85000.	72.	43.	21.	-0.4	31.0	91.	31.	32.
90000.	68.	51.	15.	0.4	33.6	89.	34.	34.
95000.	59.	51.	25.	-0.6	37.1	91.	37.	38.
100000.	57.	58.	26.	-2.3	40.2	93.	40.	41.

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

AUGUST

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)			RESULTANT DIRECTION (DEGREES)	VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTOR DEVIATION (KNOTS)
				+N	-S	+E					
6000-	156.	20.	0.	-1.7	0.3	169.	2.	6.	29.	7.	7.
8000-	156.	21.	1.	-1.8	-0.0	180.	2.	7.	25.	8.	8.
10000-	157.	25.	0.	0.2	0.1	27.	0.	8.	3.	3.	3.
12000-	157.	45.	1.	1.5	0.8	29.	2.	9.	19.	10.	10.
14000-	157.	35.	1.	2.6	1.7	32.	3.	10.	32.	11.	11.
15000-	150.	37.	1.	3.0	1.9	32.	3.	11.	33.	12.	12.
16000-	156.	40.	0.	2.7	1.6	31.	3.	11.	28.	13.	13.
18000-	156.	41.	1.	2.3	1.1	25.	3.	11.	23.	13.	13.
20000-	156.	38.	1.	2.2	0.9	22.	2.	11.	21.	13.	13.
25000-	149.	30.	1.	2.3	-2.2	316.	3.	13.	25.	14.	14.
30000-	152.	42.	1.	2.5	-4.9	297.	6.	17.	33.	18.	18.
35000-	144.	56.	0.	4.7	-8.7	298.	10.	21.	47.	22.	22.
40000-	145.	66.	3.	4.9	-10.9	294.	12.	24.	49.	26.	26.
45000-	134.	60.	4.	6.2	-8.8	305.	11.	23.	46.	25.	25.
50000-	132.	49.	2.	4.4	-3.2	324.	5.	17.	32.	19.	19.
55000-	119.	28.	1.	0.7	3.4	78.	3.	10.	35.	11.	11.
60000-	110.	29.	1.	-1.7	9.6	100.	10.	12.	79.	9.	9.
65000-	96.	29.	4.	-0.5	15.1	92.	15.	16.	95.	7.	7.
70000-	93.	30.	0.	-2.0	19.8	96.	20.	20.	97.	7.	7.
75000-	85.	35.	10.	-0.8	23.9	92.	24.	24.	98.	7.	7.
80000-	80.	41.	0.	-0.9	26.3	92.	26.	26.	98.	8.	8.
85000-	70.	42.	19.	0.3	29.4	89.	29.	30.	99.	7.	7.
90000-	64.	42.	13.	1.3	32.1	88.	32.	33.	98.	9.	9.
95000-	60.	52.	0.	0.2	36.0	90.	36.	37.	98.	10.	10.
100000-	55.	57.	19.	-0.9	36.6	91.	37.	37.	98.	11.	11.

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

SEPTEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)			RESULTANT VECTOR DIRECTION (DEGREES)	MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTOR DEVIATION (KNOTS)
				+N	-S	+E -W					
6000.	124.	31.	0.	-1.9	-0.7	200.	2.	6.	32.	7.	7.
8000.	123.	23.	1.	-2.1	-2.3	228.	3.	8.	37.	9.	9.
10000.	123.	38.	1.	-1.8	-3.7	244.	4.	11.	37.	12.	12.
12000.	122.	42.	2.	-1.7	-3.5	244.	4.	13.	30.	14.	14.
14000.	122.	46.	1.	-1.3	-4.5	254.	5.	15.	31.	17.	17.
15000.	118.	47.	1.	-1.1	-5.1	258.	5.	16.	33.	18.	18.
16000.	122.	49.	1.	-1.2	-6.2	259.	6.	16.	39.	18.	18.
18000.	121.	55.	1.	-0.5	-8.1	267.	8.	17.	47.	19.	19.
20000.	122.	61.	1.	-0.8	-10.1	265.	10.	19.	55.	19.	19.
25000.	116.	73.	1.	-1.1	-14.7	266.	15.	24.	61.	23.	23.
30000.	120.	92.	2.	-2.1	-26.4	264.	20.	29.	70.	26.	26.
35000.	115.	123.	8.	-1.4	-30.0	267.	30.	39.	76.	32.	32.
40000.	124.	97.	0.	1.9	-36.6	273.	37.	44.	82.	34.	34.
45000.	106.	89.	7.	1.2	-33.9	272.	34.	39.	86.	26.	26.
50000.	105.	60.	0.	0.3	-22.3	271.	22.	28.	81.	20.	20.
55000.	92.	40.	3.	0.2	-17.2	271.	7.	14.	52.	14.	14.
60000.	63.	24.	1.	0.9	2.7	72.	3.	10.	29.	11.	11.
65000.	77.	26.	1.	-0.2	7.6	91.	8.	10.	73.	9.	9.
70000.	75.	30.	2.	0.5	9.3	87.	9.	12.	79.	9.	9.
75000.	73.	32.	1.	0.3	12.4	89.	12.	14.	91.	9.	9.
80000.	72.	35.	3.	-0.3	15.2	91.	15.	16.	93.	10.	10.
85000.	70.	37.	1.	-0.5	15.2	92.	15.	16.	93.	10.	10.
90000.	66.	37.	2.	-1.1	15.5	94.	16.	17.	93.	11.	11.
95000.	62.	37.	3.	-1.3	17.3	94.	17.	19.	93.	11.	11.
100000.	55.	38.	2.	-4.8	16.1	107.	17.	19.	90.	11.	11.

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

OCTOBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)	VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTOR DEVIAT (KNOT)
6000.	145.	21.	0.	-1.1	229.	2.	7.	8.	25.
8000.	145.	30.	0.	-1.0	253.	3.	9.	10.	37.
10000.	145.	39.	1.	0.4	276.	4.	12.	13.	37.
12000.	145.	45.	1.	1.7	285.	6.	15.	17.	42.
14000.	142.	57.	2.	3.1	293.	8.	18.	20.	44.
15000.	137.	59.	1.	2.6	289.	9.	19.	20.	46.
16000.	141.	59.	1.	3.4	291.	9.	20.	21.	47.
18000.	140.	65.	1.	4.1	292.	11.	22.	23.	52.
20000.	140.	68.	1.	3.8	286.	12.	24.	25.	52.
25000.	136.	85.	1.	3.8	285.	15.	30.	33.	49.
30000.	137.	132.	2.	3.4	280.	19.	38.	51.	41.
35000.	132.	118.	5.	3.9	279.	26.	44.	44.	59.
40000.	134.	121.	6.	3.0	276.	30.	45.	42.	68.
45000.	117.	117.	2.	3.9	277.	31.	40.	35.	76.
50000.	107.	91.	3.	6.1	285.	24.	30.	25.	79.
55000.	94.	89.	0.	5.6	291.	16.	20.	20.	78.
60000.	89.	34.	2.	2.7	292.	7.	13.	13.	56.
65000.	82.	27.	1.	1.8	297.	4.	9.	10.	42.
70000.	79.	32.	1.	1.5	291.	4.	8.	9.	52.
75000.	75.	22.	1.	0.3	273.	5.	10.	10.	51.
80000.	71.	39.	2.	1.3	283.	6.	13.	13.	45.
85000.	57.	36.	3.	0.2	271.	11.	16.	15.	68.
90000.	53.	48.	2.	-0.7	267.	14.	20.	18.	74.
95000.	46.	68.	3.	-0.9	267.	19.	22.	18.	86.
100000.	33.	51.	0.	-2.4	265.	25.	27.	18.	93.

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

NOVEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)	VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANT (PERCENT)	STANDARD VECTOR DEVIAT. (KNOTS)
									+N -S +E -W
6000-	159-	27-	1-	-1.4	-2.8	243-	48-	7-	
8000-	160-	38-	1-	-1.7	-7.6	258-	67-	12-	
10000-	159-	45-	1-	0.1	-11.2	270-	60-	11-	
12000-	159-	49-	1-	2.4	-14.2	280-	71-	16-	
14000-	160-	71-	1-	3.4	-16.3	282-	70-	20-	
15000-	156-	67-	1-	3.3	-17.0	281-	70-	24-	
16000-	156-	70-	1-	3.3	-17.9	280-	68-	17-	
18000-	157-	84-	1-	3.3	-20.0	279-	68-	20-	
20000-	157-	90-	1-	2.9	-22.7	277-	70-	23-	
25000-	156-	110-	8-	3.8	-29.3	277-	74-	30-	
30000-	154-	130-	6-	3.6	-35.3	276-	35-	48-	
35000-	138-	146-	8-	4.2	-40.2	276-	40-	53-	
40000-	126-	144-	14-	5.7	-46.8	277-	47-	58-	
45000-	111-	106-	8-	2.1	-45.1	273-	45-	52-	
50000-	99-	96-	4-	2.7	-39.7	274-	40-	45-	
55000-	85-	72-	0-	2.2	-29.8	274-	30-	32-	
60000-	77-	61-	4-	2.6	-18.9	278-	19-	22-	
65000-	74-	43-	0-	2.1	-12.2	280-	12-	15-	
70000-	62-	41-	0-	2.1	-11.7	280-	12-	15-	
75000-	54-	47-	2-	0.3	-11.9	271-	12-	17-	
80000-	50-	44-	0-	-1.3	-15.2	265-	15-	20-	
85000-	44-	63-	5-	-0.7	-20.6	268-	21-	25-	
90000-	41-	79-	8-	-1.9	-25.3	266-	25-	29-	
95000-	41-	84-	5-	-4.2	-32.5	263-	33-	36-	
100000-	34-	94-	0-	-3.3	-35.7	265-	41-	41-	

UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

DECEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)				RESULTANT DIRECTION (DEGREES)	VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTOR DEVIAT (KNOTS)
				+N	-S	+E	-W					
6000-	148-	32-	0-	-1.9	-3.7	243-	4-	10-	47-	9-	13-	10-
8000-	149-	43-	1-	-1.4	-3.0	260-	8-	14-	61-	61-	61-	14-
10000-	149-	50-	1-	0.7	-12.7	273-	13-	17-	69-	18-	18-	17-
12000-	149-	53-	1-	1.7	-16.0	276-	16-	21-	71-	23-	23-	21-
14000-	149-	63-	1-	2.3	-18.8	277-	19-	25-	70-	23-	23-	25-
15000-	149-	74-	2-	1.9	-20.6	275-	21-	29-	71-	21-	21-	27-
16000-	148-	80-	3-	1.4	-22.1	274-	22-	31-	72-	22-	22-	28-
18000-	147-	86-	1-	1.2	-24.4	273-	24-	34-	73-	30-	30-	30-
20000-	146-	93-	3-	0.7	-27.1	272-	27-	37-	73-	33-	33-	33-
25000-	138-	122-	3-	-2.5	-34.9	266-	35-	46-	77-	40-	40-	40-
30000-	134-	161-	2-	-4.7	-42.2	264-	42-	54-	79-	47-	47-	47-
35000-	126-	174-	2-	-4.8	-46.7	264-	47-	52-	81-	50-	50-	50-
40000-	116-	148-	8-	-4.6	-49.3	265-	50-	57-	87-	42-	42-	42-
45000-	107-	137-	4-	-0.7	-46.8	269-	47-	53-	89-	33-	33-	33-
50000-	91-	100-	7-	1.4	-40.1	272-	40-	44-	90-	26-	26-	26-
55000-	81-	71-	0-	2.9	-29.3	276-	29-	33-	88-	22-	22-	22-
60000-	73-	51-	4-	2.5	-19.3	277-	19-	23-	83-	17-	17-	17-
65000-	65-	48-	4-	3.9	-14.0	286-	15-	17-	85-	12-	12-	12-
70000-	63-	40-	2-	3.9	-8.8	294-	10-	14-	70-	13-	13-	13-
75000-	61-	42-	2-	2.6	-11.9	282-	12-	16-	78-	14-	14-	14-
80000-	57-	57-	1-	1.7	-16.1	276-	16-	18-	84-	18-	18-	18-
85000-	53-	69-	2-	-0.2	-22.8	269-	23-	24-	92-	24-	24-	24-
90000-	52-	82-	6-	-2.5	-32.8	266-	33-	34-	98-	20-	20-	20-
95000-	42-	108-	9-	-5.5	-47.3	263-	48-	49-	98-	23-	23-	23-
100000-	37-	126-	11-	-7.7	-57.9	262-	58-	60-	98-	30-	30-	30-

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JANUARY

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								>300 <360	>330 <360	CALM
		>90 <120	>60 <90	>30 <60	>120 <150	>180 <210	>210 <240	>240 <270	>270 <300			
6000-	118-	2-	2-	3-	1-	2-	0-	1-	0-	8-	12-	14-
8000-	117-	9-	1-	0-	5-	2-	0-	0-	0-	3-	10-	16-
10000-	117-	4-	0-	2-	3-	0-	0-	0-	0-	8-	15-	26-
12000-	116-	7-	2-	2-	3-	0-	0-	0-	0-	6-	16-	26-
14000-	116-	9-	2-	2-	2-	0-	0-	0-	0-	6-	16-	34-
15000-	116-	8-	3-	2-	2-	0-	0-	0-	0-	6-	16-	33-
16000-	116-	8-	3-	2-	2-	0-	0-	0-	0-	6-	16-	35-
18000-	116-	9-	3-	2-	2-	0-	0-	0-	0-	6-	17-	36-
20000-	115-	7-	4-	2-	2-	1-	0-	0-	0-	7-	13-	41-
25000-	115-	109-	8-	4-	5-	4-	1-	0-	0-	5-	22-	28-
30000-	103-	4-	1-	1-	0-	0-	0-	0-	0-	2-	3-	33-
35000-	102-	4-	1-	0-	0-	0-	0-	0-	0-	2-	41-	41-
40000-	95-	2-	2-	0-	0-	0-	0-	0-	0-	1-	51-	27-
45000-	84-	0-	1-	0-	0-	0-	0-	0-	0-	1-	45-	38-
50000-	69-	1-	0-	0-	0-	0-	0-	0-	0-	3-	48-	32-
55000-	56-	0-	0-	0-	0-	0-	0-	0-	0-	2-	30-	37-
60000-	50-	4-	4-	2-	2-	0-	0-	0-	0-	4-	34-	29-
65000-	44-	9-	2-	2-	2-	0-	0-	0-	0-	2-	14-	30-
70000-	38-	16-	11-	8-	3-	0-	0-	0-	0-	0-	18-	16-
75000-	37-	14-	11-	5-	3-	0-	0-	0-	0-	3-	11-	32-
80000-	35-	6-	11-	6-	0-	0-	0-	0-	0-	6-	20-	26-
85000-	31-	3-	10-	2-	0-	0-	0-	0-	0-	3-	19-	11-
90000-	23-	4-	0-	4-	0-	0-	0-	0-	0-	4-	17-	10-
95000-	15-	0-	0-	0-	0-	0-	0-	0-	0-	7-	22-	9-
100000-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	20-	47-

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

FEBRUARY

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)											
		≥ 90			≥ 120			≥ 150			≥ 180		
		≥ 90	< 120	< 150	≥ 120	< 150	< 180	≥ 150	< 180	< 210	≥ 180	< 210	< 240
6000.	112.	10.	9.	4.	1.	1.	1.	5.	6.	1.	1.	1.	1.
8000.	112.	5.	5.	3.	0.	0.	0.	3.	1.	0.	10.	14.	12.
10000.	111.	5.	2.	4.	0.	0.	0.	2.	0.	0.	5.	19.	15.
12000.	111.	3.	5.	2.	0.	0.	0.	0.	0.	0.	6.	20.	12.
14000.	111.	3.	5.	2.	0.	0.	0.	0.	0.	0.	4.	22.	14.
15000.	110.	4.	3.	3.	0.	0.	0.	0.	0.	0.	2.	3.	15.
16000.	111.	5.	3.	4.	0.	0.	0.	0.	0.	0.	3.	24.	17.
18000.	110.	5.	3.	4.	0.	0.	0.	0.	0.	0.	3.	26.	17.
20000.	110.	5.	3.	4.	0.	0.	0.	0.	0.	0.	3.	27.	16.
25000.	107.	3.	4.	3.	0.	0.	0.	0.	0.	0.	1.	3.	28.
30000.	105.	5.	3.	2.	0.	0.	0.	0.	0.	0.	1.	5.	19.
35000.	100.	4.	2.	0.	0.	0.	0.	0.	0.	0.	0.	5.	32.
40000.	93.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.	34.
45000.	90.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.	38.
50000.	75.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.	29.
55000.	64.	2.	0.	2.	0.	0.	0.	0.	0.	0.	2.	2.	31.
60000.	58.	2.	0.	2.	0.	0.	0.	0.	0.	0.	5.	5.	34.
65000.	56.	4.	2.	4.	0.	0.	0.	4.	2.	0.	7.	7.	32.
70000.	54.	6.	4.	6.	0.	0.	0.	9.	7.	0.	6.	6.	28.
75000.	50.	2.	2.	2.	0.	0.	0.	2.	0.	0.	2.	2.	40.
80000.	47.	2.	2.	2.	0.	0.	0.	13.	9.	0.	0.	0.	15.
85000.	43.	0.	0.	5.	0.	0.	0.	14.	5.	0.	0.	0.	49.
90000.	38.	5.	0.	0.	0.	0.	0.	16.	3.	0.	0.	0.	37.
95000.	30.	0.	0.	3.	0.	0.	0.	17.	3.	0.	0.	0.	43.
100000.	25.	0.	0.	0.	0.	0.	0.	16.	0.	0.	0.	0.	4.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

MARCH

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)												CALM					
		≥ 360	≥ 30	≥ 240	≥ 180	≥ 150	< 150	≥ 120	≥ 90	< 90	< 120	< 150	< 210	< 240	≥ 210	≥ 240	≥ 270	≥ 300	≥ 330
6000.	161.	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..	5..
8000.	161.	2..	2..	0..	1..	0..	2..	2..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
10000.	160.	3..	3..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..
12000.	158.	4..	3..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..
14000.	158.	3..	3..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..
15000.	155.	3..	2..	2..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..
16000.	159.	2..	4..	2..	2..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..
18000.	158.	2..	3..	3..	3..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
20000.	157.	2..	3..	3..	3..	1..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
25000.	152.	1..	3..	3..	4..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
30000.	154.	3..	2..	3..	3..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
35000.	147.	4..	3..	3..	3..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
40000.	145.	3..	2..	1..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
45000.	132.	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
50000.	129.	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
55000.	112.	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
60000.	102.	0..	0..	3..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..
65000.	88.	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..	1..
70000.	85.	1..	0..	6..	4..	4..	4..	4..	4..	4..	4..	4..	4..	4..	4..	4..	4..	4..	4..
75000.	70.	0..	6..	6..	4..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..	3..
80000.	57.	4..	5..	2..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
85000.	47.	2..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
90000.	43.	0..	0..	2..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
95000.	39.	0..	0..	3..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..
100000.	29.	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..	0..

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JALS)
 PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE MSLIFT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM
		≥ 30°	≤ 30°	≥ 60°	≤ 60°	≥ 90°	≤ 90°	≥ 120°	≤ 120°	
6000.	139.	6°	9°	1°	2°	2°	1°	1°	1°	19°
8000.	137.	6°	4°	1°	2°	3°	2°	4°	4°	8°
10000.	137.	1°	1°	1°	1°	0°	0°	0°	0°	9°
12000.	137.	4°	0°	0°	0°	0°	0°	0°	0°	4°
14000.	137.	3°	0°	1°	4°	0°	0°	0°	0°	7°
15000.	136.	4°	1°	1°	1°	1°	1°	1°	1°	34°
16000.	136.	4°	0°	0°	0°	0°	0°	0°	0°	6°
18000.	137.	1°	0°	0°	0°	0°	0°	0°	0°	7°
20000.	137.	1°	0°	0°	0°	0°	0°	0°	0°	7°
25000.	136.	2°	4°	1°	1°	0°	0°	1°	0°	27°
30000.	135.	4°	4°	1°	1°	0°	0°	0°	0°	36°
35000.	129.	4°	3°	2°	2°	0°	0°	0°	0°	39°
40000.	124.	4°	3°	2°	2°	0°	0°	0°	0°	46°
45000.	115.	0°	0°	0°	0°	0°	0°	0°	0°	40°
50000.	109.	0°	0°	0°	0°	0°	0°	0°	0°	43°
55000.	101.	0°	0°	0°	0°	0°	0°	0°	0°	35°
60000.	92.	0°	1°	1°	1°	1°	1°	1°	1°	69°
65000.	84.	2°	0°	0°	0°	0°	0°	0°	0°	56°
70000.	81.	4°	4°	6°	6°	6°	6°	6°	6°	40°
75000.	78.	6°	6°	17°	15°	10°	9°	7°	7°	43°
80000.	75.	3°	3°	17°	16°	16°	16°	15°	15°	45°
85000.	70.	3°	3°	17°	16°	16°	16°	15°	15°	45°
90000.	65.	2°	2°	8°	6°	6°	6°	6°	6°	47°
95000.	57.	0°	2°	4°	5°	5°	5°	5°	5°	44°
100000.	61.	0°	2°	2°	2°	2°	2°	2°	2°	7°

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM
		≥ 360	≥ 30	≥ 90	≥ 120	≥ 150	≥ 180	≥ 210	≥ 240	
MAY										
6000-	128-	5-	4-	4-	6-	6-	21-	12-	12-	4-
8000-	126-	5-	3-	2-	3-	2-	20-	15-	15-	3-
10000-	125-	3-	0-	1-	1-	2-	7-	30-	30-	0-
12000-	124-	3-	1-	0-	3-	3-	6-	23-	23-	0-
14000-	124-	3-	2-	0-	2-	2-	10-	36-	36-	0-
15000-	121-	2-	2-	2-	2-	2-	7-	26-	35-	0-
16000-	121-	2-	2-	2-	2-	2-	5-	24-	36-	0-
18000-	120-	1-	2-	2-	2-	2-	7-	20-	41-	4-
20000-	120-	2-	2-	2-	2-	0-	6-	14-	47-	2-
25000-	219-	2-	1-	2-	4-	1-	3-	4-	15-	0-
30000-	221-	2-	2-	2-	0-	0-	4-	2-	15-	0-
35000-	114-	2-	3-	1-	1-	1-	0-	3-	12-	0-
40000-	115-	2-	1-	0-	0-	0-	0-	3-	10-	0-
45000-	103-	0-	0-	0-	0-	0-	0-	2-	12-	0-
50000-	100-	0-	0-	0-	0-	0-	0-	1-	17-	0-
55000-	98-	0-	0-	0-	0-	0-	0-	5-	23-	0-
60000-	94-	3-	2-	1-	1-	3-	5-	6-	17-	0-
65000-	91-	8-	7-	7-	5-	9-	11-	12-	3-	4-
70000-	90-	6-	10-	18-	19-	8-	12-	9-	7-	2-
75000-	81-	4-	10-	26-	27-	6-	6-	4-	5-	4-
80000-	78-	6-	6-	15-	23-	13-	13-	5-	4-	4-
85000-	73-	3-	3-	14-	32-	10-	8-	4-	8-	1-
90000-	71-	1-	8-	13-	21-	14-	0-	1-	10-	17-
95000-	64-	0-	0-	17-	16-	8-	5-	5-	11-	5-
100000-	51-	0-	0-	10-	20-	10-	6-	6-	12-	2-

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR MIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JUNE

GEOMETRIC ALTITUDE HSL FT	TOTAL OBS	MIND DIRECTIONS (DEGREES)								CALM										
		> 90	< 120	> 120	< 150	> 150	< 180	> 180	< 210	> 210	< 240	> 240	< 270	> 270	< 300	> 300	< 330	> 330	< 360	
6000.	127.	2.	2.	6.	20.	20.	28.	17.	6.	2.	8.	5.	1.	0.	0.	0.	0.	0.	0.	
8000.	127.	2.	1.	1.	4.	13.	20.	17.	27.	26.	9.	9.	2.	2.	2.	2.	2.	2.	0.	
10000.	127.	1.	2.	1.	2.	8.	17.	17.	27.	26.	9.	9.	4.	4.	8.	8.	8.	8.	0.	
12000.	128.	5.	5.	1.	0.	1.	5.	13.	32.	23.	5.	5.	1.	1.	5.	5.	5.	5.	0.	
14000.	127.	6.	6.	3.	1.	1.	6.	9.	35.	22.	5.	5.	2.	2.	2.	2.	2.	2.	0.	
15000.	124.	3.	10.	2.	2.	0.	6.	10.	34.	23.	4.	4.	21.	21.	6.	6.	3.	3.	0.	
16000.	126.	2.	10.	5.	5.	1.	1.	4.	13.	32.	21.	21.	10.	10.	2.	2.	2.	2.	0.	
18000.	125.	2.	6.	6.	4.	3.	2.	2.	13.	26.	29.	29.	12.	12.	6.	6.	3.	3.	0.	
20000.	125.	4.	6.	6.	1.	2.	2.	2.	9.	27.	31.	31.	15.	15.	6.	6.	6.	6.	0.	
25000.	124.	1.	3.	1.	1.	1.	2.	2.	6.	27.	31.	31.	19.	19.	1.	1.	1.	1.	0.	
30000.	120.	1.	1.	0.	0.	0.	0.	1.	0.	4.	28.	35.	35.	10.	10.	0.	0.	0.	0.	0.
35000.	114.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	34.	32.	16.	16.	0.	0.	0.	0.	0.
40000.	115.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	29.	35.	23.	23.	0.	0.	0.	0.	0.
45000.	112.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	26.	39.	25.	25.	5.	5.	2.	2.	0.
50000.	105.	2.	0.	0.	0.	0.	0.	0.	1.	3.	28.	35.	35.	19.	19.	0.	0.	0.	0.	0.
55000.	99.	2.	2.	4.	1.	4.	3.	1.	12.	16.	13.	5.	3.	3.	4.	4.	4.	4.	0.	
60000.	97.	3.	5.	4.	2.	4.	14.	14.	12.	23.	6.	4.	4.	4.	2.	2.	2.	2.	0.	
65000.	95.	4.	1.	1.	4.	4.	37.	39.	11.	4.	2.	2.	0.	0.	0.	0.	0.	0.	0.	
70000.	92.	1.	1.	0.	0.	0.	36.	54.	8.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
75000.	89.	0.	0.	1.	0.	1.	24.	59.	15.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
80000.	79.	0.	0.	0.	0.	0.	39.	47.	8.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
85000.	74.	0.	0.	0.	0.	0.	36.	52.	9.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
90000.	66.	0.	0.	0.	0.	0.	37.	51.	7.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
95000.	59.	2.	2.	4.	2.	4.	28.	63.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
100000.	54.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JARLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JULY

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)						CALM < 360			
		≥ 360	230 < 30	≥ 90 < 120	≥ 120 < 150	≥ 150 < 180	≥ 180 < 210	≥ 210 < 240	≥ 240 < 270	≥ 270 < 300	≥ 300 < 330
6000.	169.	6.	6.	5.	5.	5.	5.	16.	16.	10.	3.
8000.	149.	2.	7.	5.	7.	9.	13.	13.	13.	5.	1.
10000.	149.	4.	7.	9.	9.	11.	12.	12.	12.	5.	1.
12000.	149.	5.	7.	9.	9.	11.	12.	12.	12.	5.	1.
14000.	149.	9.	6.	6.	14.	13.	13.	14.	10.	2.	1.
15000.	141.	8.	8.	4.	9.	14.	17.	17.	12.	1.	6.
16000.	149.	8.	5.	5.	9.	17.	15.	12.	12.	6.	1.
18000.	148.	5.	4.	4.	11.	18.	20.	19.	10.	3.	0.
20000.	147.	4.	4.	4.	12.	13.	16.	10.	17.	7.	3.
25000.	139.	4.	5.	5.	9.	12.	12.	12.	19.	14.	1.
30000.	145.	5.	6.	6.	8.	10.	22.	18.	12.	6.	0.
35000.	133.	2.	2.	5.	5.	11.	14.	15.	15.	3.	0.
40000.	137.	5.	5.	6.	6.	11.	12.	17.	9.	4.	0.
45000.	121.	3.	3.	5.	5.	9.	10.	21.	12.	6.	0.
50000.	118.	7.	8.	8.	8.	16.	16.	10.	13.	3.	0.
55000.	104.	0.	0.	0.	18.	28.	24.	14.	6.	1.	0.
60000.	102.	2.	2.	5.	22.	46.	21.	2.	2.	7.	0.
65000.	91.	0.	0.	0.	33.	55.	10.	0.	0.	0.	0.
70000.	89.	0.	0.	0.	38.	60.	2.	0.	0.	0.	0.
75000.	81.	0.	0.	0.	35.	65.	0.	0.	0.	0.	0.
80000.	81.	0.	0.	0.	43.	56.	0.	0.	0.	0.	0.
85000.	72.	0.	0.	0.	40.	60.	0.	0.	0.	0.	0.
90000.	68.	0.	0.	0.	47.	53.	0.	0.	0.	0.	0.
95000.	59.	0.	0.	0.	42.	58.	0.	0.	0.	0.	0.
100000.	57.	0.	0.	0.	37.	63.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

AUGUST

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM
		≥ 30 < 60	≥ 60 < 90	≥ 90 < 120	≥ 120 < 150	≥ 150 < 180	≥ 180 < 210	≥ 210 < 240	≥ 240 < 270	
6000.	156.	6.	10.	4.	8.	19.	13.	6.	5.	2.
8000.	156.	4.	6.	10.	9.	18.	11.	6.	3.	0.
10000.	157.	7.	10.	6.	8.	12.	8.	7.	4.	4.
12000.	157.	9.	12.	8.	13.	8.	5.	10.	6.	11.
14000.	157.	10.	10.	18.	11.	4.	1.	5.	6.	12.
15000.	150.	9.	15.	15.	11.	5.	3.	2.	6.	0.
16000.	156.	11.	13.	13.	12.	6.	3.	4.	7.	14.
18000.	156.	12.	9.	12.	12.	8.	3.	7.	5.	0.
20000.	156.	10.	11.	14.	9.	6.	2.	10.	6.	16.
25000.	149.	6.	5.	10.	8.	5.	5.	5.	5.	15.
30000.	152.	5.	8.	7.	3.	6.	4.	4.	7.	1.
35000.	144.	8.	6.	3.	0.	3.	6.	0.	8.	0.
40000.	145.	10.	4.	2.	6.	3.	1.	4.	10.	1.
45000.	134.	7.	10.	1.	4.	6.	5.	2.	7.	17.
50000.	132.	13.	8.	7.	3.	5.	3.	6.	12.	14.
55000.	119.	8.	14.	21.	10.	6.	7.	7.	6.	1.
60000.	110.	3.	9.	26.	28.	15.	7.	8.	3.	0.
65000.	96.	0.	3.	41.	49.	6.	9.	0.	0.	0.
70000.	93.	0.	0.	33.	62.	2.	1.	0.	0.	1.
75000.	85.	0.	0.	39.	61.	0.	0.	0.	0.	0.
80000.	80.	0.	1.	31.	65.	0.	0.	0.	0.	3.
85000.	70.	0.	0.	47.	53.	0.	0.	0.	0.	0.
90000.	64.	0.	2.	47.	52.	0.	0.	0.	0.	0.
95000.	60.	0.	3.	33.	62.	0.	0.	0.	0.	0.
100000.	55.	0.	2.	38.	60.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

SEPTEMBER

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM
		≥ 360 < 30	≥ 30 < 90	≥ 90 < 120	≥ 120 < 150	≥ 150 < 180	≥ 180 < 210	≥ 210 < 240	≥ 240 < 270	
6000.	124.	6.	6.	2.	3.	19.	12.	12.	10.	2.
8000.	123.	5.	7.	7.	4.	7.	13.	10.	9.	0.
10000.	123.	5.	6.	7.	3.	8.	5.	10.	17.	0.
12000.	122.	5.	5.	11.	3.	9.	4.	11.	14.	5.
14000.	122.	6.	7.	9.	3.	8.	2.	11.	13.	0.
15000.	118.	6.	7.	8.	3.	9.	2.	13.	16.	0.
16000.	122.	5.	7.	7.	6.	2.	3.	9.	15.	0.
18000.	121.	7.	11.	3.	2.	1.	4.	7.	18.	0.
20000.	122.	8.	6.	4.	2.	0.	3.	7.	15.	0.
25000.	126.	3.	4.	3.	1.	4.	0.	6.	16.	0.
30000.	120.	2.	2.	2.	2.	4.	2.	1.	4.	22.
35000.	115.	2.	2.	3.	1.	1.	1.	6.	12.	0.
40000.	114.	1.	0.	0.	0.	0.	0.	6.	27.	0.
45000.	106.	2.	0.	0.	0.	0.	0.	6.	15.	0.
50000.	105.	1.	0.	0.	0.	0.	0.	6.	25.	0.
55000.	92.	13.	7.	2.	4.	1.	3.	9.	30.	0.
60000.	83.	10.	14.	12.	13.	7.	8.	5.	13.	0.
65000.	77.	1.	12.	13.	35.	9.	8.	1.	21.	0.
70000.	75.	3.	1.	12.	44.	21.	7.	7.	6.	0.
75000.	73.	1.	7.	41.	36.	8.	1.	3.	5.	0.
80000.	72.	0.	4.	47.	36.	7.	0.	4.	1.	0.
85000.	70.	1.	4.	44.	36.	7.	4.	3.	0.	0.
90000.	66.	0.	5.	35.	44.	9.	3.	2.	0.	0.
95000.	62.	0.	3.	32.	50.	10.	2.	0.	0.	2.
100000.	55.	0.	2.	22.	47.	22.	4.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD : 1962-1967

OCTOBER

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM			
		≥ 360	≥ 30	≥ 60	≥ 90	≥ 120	≥ 150	≥ 180	≥ 210	≥ 240	≥ 270	≥ 300	≥ 330
6000.	145.	10.	9.	2.	3.	6.	10.	13.	13.	8.	6.	11.	1.
8000.	145.	10.	4.	2.	6.	3.	8.	12.	12.	12.	6.	11.	1.
10000.	145.	8.	8.	5.	4.	3.	4.	12.	11.	11.	14.	9.	0.
12000.	145.	11.	10.	5.	5.	0.	1.	10.	10.	12.	12.	10.	0.
14000.	142.	13.	6.	3.	5.	4.	1.	1.	9.	7.	15.	15.	0.
15000.	137.	13.	7.	3.	4.	0.	0.	11.	8.	15.	15.	13.	0.
16000.	141.	11.	9.	4.	1.	0.	1.	9.	9.	13.	13.	13.	0.
18000.	140.	12.	9.	4.	1.	1.	1.	4.	13.	12.	16.	16.	0.
20000.	140.	15.	7.	4.	3.	1.	1.	1.	1.	15.	15.	14.	0.
25000.	136.	12.	8.	5.	1.	0.	3.	1.	16.	12.	12.	15.	0.
30000.	137.	16.	4.	4.	1.	0.	1.	2.	17.	12.	20.	9.	0.
35000.	132.	14.	3.	4.	0.	0.	0.	1.	17.	16.	17.	20.	0.
40000.	131.	8.	4.	2.	0.	0.	0.	0.	0.	15.	19.	24.	0.
45000.	117.	8.	1.	0.	0.	0.	0.	1.	10.	21.	33.	19.	0.
50000.	107.	2.	3.	0.	0.	0.	0.	1.	10.	20.	26.	25.	0.
55000.	94.	6.	1.	1.	0.	0.	1.	0.	11.	20.	20.	28.	0.
60000.	89.	8.	1.	1.	4.	1.	3.	7.	13.	8.	11.	10.	0.
65000.	82.	6.	2.	5.	4.	5.	6.	10.	13.	13.	13.	13.	0.
70000.	79.	6.	8.	3.	6.	4.	3.	3.	8.	8.	19.	25.	0.
75000.	75.	5.	4.	7.	4.	4.	7.	3.	3.	9.	21.	21.	0.
80000.	71.	4.	8.	4.	3.	1.	1.	1.	4.	4.	25.	25.	0.
85000.	57.	4.	9.	7.	4.	4.	4.	4.	4.	4.	28.	25.	0.
90000.	53.	8.	4.	2.	4.	4.	8.	0.	6.	6.	32.	21.	0.
95000.	46.	2.	4.	2.	2.	0.	0.	7.	4.	4.	37.	35.	0.
100000.	33.	3.	0.	0.	0.	0.	0.	3.	3.	3.	45.	33.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JALI)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM
		≥ 360	≥ 30	≥ 90	≥ 120	≥ 150	≥ 180	≥ 210	≥ 240	
NOVEMBER										
6000.	159.	2.	2.	3.	1.	1.	1.	1.	1.	0.
8000.	160.	4.	3.	1.	1.	1.	1.	1.	1.	0.
10000.	159.	5.	1.	1.	1.	1.	1.	1.	1.	0.
12000.	159.	6.	1.	1.	1.	1.	1.	1.	1.	0.
14000.	160.	5.	3.	2.	0.	0.	0.	0.	0.	0.
15000.	156.	5.	3.	1.	0.	1.	1.	1.	1.	0.
16000.	156.	9.	2.	2.	1.	1.	1.	1.	1.	0.
18000.	157.	6.	3.	1.	1.	1.	1.	1.	1.	0.
20000.	157.	6.	3.	1.	1.	1.	1.	1.	1.	0.
25000.	156.	4.	1.	1.	1.	1.	1.	1.	1.	0.
30000.	154.	3.	2.	1.	1.	1.	1.	1.	1.	0.
35000.	138.	4.	1.	1.	1.	1.	1.	1.	1.	0.
40000.	126.	3.	3.	0.	0.	0.	0.	0.	0.	0.
45000.	111.	3.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	99.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	85.	1.	0.	0.	0.	0.	0.	0.	0.	1.
60000.	77.	3.	3.	0.	0.	0.	0.	0.	0.	0.
65000.	74.	1.	3.	3.	0.	0.	0.	0.	0.	1.
70000.	62.	5.	6.	2.	0.	0.	0.	0.	0.	2.
75000.	54.	2.	6.	9.	2.	0.	0.	0.	0.	0.
80000.	50.	0.	8.	6.	2.	0.	0.	0.	0.	2.
85000.	44.	2.	5.	5.	0.	0.	0.	0.	0.	0.
90000.	41.	0.	5.	5.	0.	0.	0.	0.	0.	0.
95000.	41.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	34.	3.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

DECEMBER

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM
		≥ 90 < 120	≥ 120 < 150	≥ 150 < 180	≥ 180 < 210	≥ 210 < 240	≥ 240 < 270	≥ 270 < 300	≥ 300 < 330	
6000.	148.	9.	5.	3.	5.	13.	20.	16.	6.	1.
8000.	149.	7.	3.	2.	4.	1.	5.	17.	13.	0.
10000.	149.	7.	0.	0.	0.	5.	4.	10.	22.	15.
12000.	149.	5.	1.	1.	0.	3.	1.	14.	21.	14.
14000.	149.	6.	1.	1.	0.	0.	3.	17.	17.	10.
15000.	149.	4.	1.	1.	1.	2.	1.	5.	13.	0.
16000.	148.	5.	0.	0.	2.	2.	1.	3.	11.	27.
18000.	147.	5.	0.	0.	2.	1.	3.	12.	27.	18.
20000.	146.	5.	0.	0.	1.	4.	3.	12.	28.	19.
25000.	138.	4.	0.	0.	1.	1.	1.	4.	14.	33.
30000.	134.	4.	0.	0.	1.	1.	0.	1.	20.	35.
35000.	126.	5.	0.	0.	0.	0.	0.	0.	15.	37.
40000.	116.	1.	1.	0.	0.	0.	0.	1.	15.	35.
45000.	107.	0.	0.	0.	0.	0.	0.	3.	10.	31.
50000.	91.	0.	0.	0.	0.	0.	0.	0.	9.	29.
55000.	81.	2.	0.	0.	0.	0.	0.	0.	9.	25.
60000.	73.	3.	1.	0.	0.	0.	0.	4.	8.	27.
65000.	65.	8.	2.	0.	0.	0.	0.	0.	5.	23.
70000.	63.	8.	3.	0.	0.	0.	0.	0.	8.	28.
75000.	61.	3.	1.	0.	0.	0.	0.	0.	5.	20.
80000.	57.	0.	0.	0.	0.	0.	0.	0.	5.	25.
85000.	53.	0.	0.	0.	0.	0.	0.	0.	2.	45.
90000.	52.	0.	0.	0.	0.	0.	0.	0.	0.	60.
95000.	42.	0.	0.	0.	0.	0.	0.	0.	2.	64.
100000.	37.	0.	0.	0.	0.	0.	0.	0.	3.	59.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

JANUARY

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)						WIND SPEED (KNOTS)		
			≥ 20	≥ 30	≥ 40	≥ 50	≥ 60	≥ 70	≥ 80	≥ 90	≥ 100
6000.	118.	2.	58.	31.	8.	0.	0.	0.	0.	0.	0.
8000.	117.	0.	21.	48.	24.	8.	0.	0.	0.	0.	0.
10000.	117.	0.	9.	31.	41.	14.	5.	0.	0.	0.	0.
12000.	116.	0.	9.	18.	38.	26.	6.	3.	0.	0.	0.
14000.	116.	0.	5.	16.	28.	29.	14.	5.	3.	0.	0.
15000.	116.	0.	4.	17.	22.	32.	15.	7.	3.	0.	0.
16000.	116.	0.	4.	14.	16.	34.	20.	8.	2.	0.	0.
18000.	115.	0.	5.	9.	12.	28.	26.	11.	3.	0.	0.
20000.	115.	0.	4.	7.	13.	23.	26.	14.	7.	1.	0.
25000.	115.	0.	3.	7.	8.	16.	18.	21.	4.	1.	0.
30000.	109.	0.	4.	3.	9.	13.	16.	19.	6.	2.	0.
35000.	103.	0.	0.	9.	8.	9.	11.	13.	8.	8.	0.
40000.	102.	0.	2.	4.	7.	7.	11.	11.	4.	10.	9.
45000.	95.	0.	2.	4.	5.	11.	11.	18.	13.	15.	2.
50000.	84.	0.	0.	5.	11.	7.	17.	15.	21.	14.	2.
55000.	69.	0.	4.	12.	16.	12.	23.	13.	7.	3.	0.
60000.	55.	0.	12.	34.	25.	11.	9.	5.	0.	2.	0.
65000.	50.	0.	2.	22.	32.	20.	12.	0.	0.	0.	0.
70000.	44.	0.	45.	23.	14.	20.	0.	0.	0.	0.	0.
75000.	38.	0.	58.	21.	13.	5.	0.	0.	0.	0.	0.
80000.	37.	0.	32.	43.	11.	5.	0.	0.	0.	0.	0.
85000.	35.	0.	31.	43.	14.	3.	0.	0.	0.	0.	0.
90000.	31.	0.	19.	45.	13.	6.	0.	0.	0.	0.	0.
95000.	23.	0.	13.	39.	17.	9.	0.	0.	0.	0.	0.
100000.	15.	0.	7.	27.	20.	13.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

FEBRUARY

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)									
			≥ 10	≥ 20	≥ 30	≥ 40	≥ 50	≥ 60	≥ 70	≥ 80	≥ 90	≥ 125
6000.	142.	1.	63.	28.	8.	0.	0.	0.	0.	0.	0.	0.
8000.	112.	0.	32.	50.	15.	1.	2.	0.	0.	0.	0.	0.
10000.	111.	0.	19.	44.	30.	6.	0.	1.	0.	0.	0.	0.
12000.	111.	0.	11.	33.	32.	14.	9.	0.	1.	0.	0.	0.
14000.	111.	0.	7.	20.	32.	20.	16.	5.	0.	1.	0.	0.
15000.	110.	0.	4.	13.	31.	26.	15.	5.	1.	0.	0.	0.
16000.	111.	0.	3.	14.	30.	28.	9.	14.	1.	0.	0.	0.
18000.	110.	0.	3.	13.	23.	25.	17.	11.	8.	4.	0.	0.
20000.	110.	0.	2.	9.	21.	25.	14.	14.	13.	4.	0.	0.
25000.	107.	0.	1.	7.	12.	15.	20.	15.	9.	3.	0.	0.
30000.	105.	0.	3.	2.	8.	11.	21.	19.	12.	13.	4.	0.
35000.	100.	0.	1.	4.	11.	12.	7.	11.	11.	14.	11.	0.
40000.	93.	0.	2.	6.	6.	14.	11.	15.	14.	11.	6.	14.
45000.	90.	0.	1.	2.	7.	8.	18.	19.	17.	14.	4.	0.
50000.	75.	0.	1.	3.	4.	12.	24.	23.	17.	15.	3.	0.
55000.	64.	0.	3.	6.	17.	14.	39.	13.	0.	0.	0.	0.
60000.	58.	0.	14.	26.	24.	21.	10.	3.	0.	0.	0.	0.
65000.	56.	0.	18.	32.	18.	27.	4.	0.	0.	0.	0.	0.
70000.	54.	0.	28.	41.	22.	9.	0.	0.	0.	0.	0.	0.
75000.	50.	0.	16.	38.	32.	12.	2.	0.	0.	0.	0.	0.
80060.	47.	0.	14.	23.	38.	9.	9.	2.	0.	0.	0.	0.
85000.	43.	0.	16.	26.	26.	21.	7.	5.	0.	0.	0.	0.
90000.	38.	0.	13.	24.	29.	18.	11.	0.	0.	0.	0.	0.
95000.	30.	0.	17.	23.	10.	27.	17.	7.	0.	0.	0.	0.
100000.	25.	0.	16.	15.	20.	32.	4.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	>10 <20	>20 <30	WIND SPEED (KNOTS)								2125 <150	2150 <150
					>30 <40	>40 <50	>50 <60	>60 <70	>70 <80	>80 <90	>90 <100	>100 <125		
6000.	161.	0.	67.	27.	6.	1.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	161.	0.	60.	48.	10.	2.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	160.	0.	24.	45.	21.	8.	1.	0.	0.	0.	0.	0.	0.	0.
12000.	159.	0.	15.	38.	22.	16.	8.	1.	0.	0.	0.	0.	0.	0.
14000.	158.	0.	11.	30.	20.	17.	9.	3.	1.	0.	0.	0.	0.	0.
15000.	155.	0.	8.	26.	21.	21.	16.	6.	1.	0.	0.	0.	0.	0.
16000.	151.	0.	5.	27.	19.	24.	15.	10.	1.	1.	0.	0.	0.	0.
18000.	158.	1.	1.	22.	22.	21.	13.	4.	1.	0.	0.	0.	0.	0.
20000.	157.	0.	1.	15.	21.	22.	17.	12.	9.	0.	0.	0.	0.	0.
25000.	152.	1.	1.	7.	19.	16.	17.	9.	14.	5.	5.	2.	0.	0.
30000.	154.	1.	6.	5.	10.	11.	17.	14.	8.	9.	8.	5.	2.	0.
35000.	147.	0.	5.	7.	9.	12.	12.	11.	11.	10.	10.	10.	4.	1.
40000.	145.	0.	4.	2.	6.	14.	12.	10.	8.	8.	10.	12.	3.	1.
45000.	132.	0.	3.	2.	6.	12.	12.	14.	13.	14.	10.	10.	4.	1.
50000.	129.	0.	0.	2.	6.	16.	21.	18.	15.	13.	13.	13.	6.	1.
55000.	122.	1.	1.	7.	17.	24.	13.	21.	19.	19.	19.	19.	10.	0.
60000.	102.	1.	3.	28.	30.	13.	10.	9.	8.	8.	8.	8.	2.	0.
65000.	88.	2.	10.	41.	19.	12.	8.	6.	5.	5.	5.	5.	2.	0.
70000.	85.	2.	29.	34.	22.	7.	1.	2.	0.	0.	0.	0.	1.	0.
75000.	70.	3.	23.	47.	14.	4.	3.	0.	0.	0.	0.	0.	0.	0.
80000.	57.	2.	25.	40.	18.	4.	5.	2.	2.	2.	2.	2.	0.	0.
85000.	47.	0.	23.	30.	30.	13.	2.	0.	0.	0.	0.	0.	0.	0.
90000.	43.	0.	7.	26.	37.	23.	0.	5.	2.	2.	2.	2.	0.	0.
95000.	39.	0.	10.	28.	28.	13.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	29.	3.	7.	17.	3.	24.	10.	7.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE ASL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)					
			≥ 20	≥ 30	≥ 50	≥ 70	≥ 80	≥ 90
6000-	139-	0-	45-	39-	15-	0-	0-	0-
8000-	137-	0-	35-	41-	20-	3-	4-	1-
10000-	137-	0-	20-	42-	22-	12-	2-	1-
12000-	137-	0-	14-	28-	26-	19-	10-	2-
14000-	137-	0-	12-	15-	27-	18-	7-	1-
15000-	136-	0-	12-	12-	20-	24-	18-	4-
16000-	136-	0-	7-	15-	17-	22-	21-	12-
18000-	137-	0-	3-	13-	16-	20-	16-	6-
20000-	137-	0-	3-	9-	14-	21-	19-	1-
25000-	136-	0-	4-	14-	6-	10-	20-	17-
30000-	135-	0-	0-	5-	9-	7-	13-	14-
35000-	129-	0-	0-	3-	7-	6-	12-	13-
40000-	124-	2-	0-	1-	3-	11-	8-	15-
45000-	115-	1-	0-	0-	5-	12-	11-	10-
50000-	109-	2-	2-	2-	3-	10-	9-	13-
55000-	101-	1-	1-	1-	3-	16-	12-	26-
60000-	92-	0-	1-	1-	11-	35-	27-	3-
65000-	84-	0-	0-	0-	45-	36-	42-	4-
70000-	81-	0-	0-	0-	53-	40-	5-	1-
75000-	78-	0-	0-	0-	50-	42-	5-	1-
80000-	75-	0-	0-	0-	49-	40-	7-	3-
85000-	70-	0-	0-	0-	56-	33-	7-	4-
90000-	65-	2-	0-	0-	42-	40-	11-	3-
95000-	57-	7-	0-	0-	32-	42-	11-	5-
100000-	41-	2-	0-	0-	15-	39-	22-	12-

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (KM PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

MAY

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)											
			≥10	<10	≥20	<20	≥30	<30	≥40	<40	≥50	<50	≥70	<70
6000.	128.	1.	63.	30.	5.	2.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	126.	0.	50.	42.	6.	2.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	125.	0.	33.	49.	17.	2.	0.	0.	0.	0.	0.	0.	0.	0.
12000.	124.	0.	24.	44.	20.	9.	2.	1.	0.	0.	0.	0.	0.	0.
14000.	124.	0.	16.	35.	31.	9.	4.	5.	1.	0.	0.	0.	0.	0.
15000.	121.	0.	14.	31.	31.	12.	5.	4.	2.	0.	0.	0.	0.	0.
16000.	121.	0.	8.	32.	32.	15.	7.	2.	0.	0.	0.	0.	0.	0.
18000.	120.	0.	7.	26.	29.	21.	8.	3.	2.	0.	0.	0.	0.	0.
20000.	120.	0.	7.	25.	22.	23.	12.	6.	2.	0.	0.	0.	0.	0.
25000.	119.	0.	8.	18.	13.	20.	15.	11.	6.	0.	0.	0.	0.	0.
30000.	121.	1.	4.	15.	11.	16.	17.	12.	0.	0.	0.	0.	0.	0.
35000.	114.	0.	4.	8.	14.	9.	11.	20.	0.	0.	0.	0.	0.	0.
40000.	115.	2.	3.	8.	7.	12.	13.	12.	0.	0.	0.	0.	0.	0.
45000.	103.	1.	2.	3.	8.	14.	18.	15.	0.	0.	0.	0.	0.	0.
50000.	100.	0.	0.	9.	16.	21.	26.	10.	0.	0.	0.	0.	0.	0.
55000.	98.	3.	3.	35.	33.	13.	5.	5.	0.	0.	0.	0.	0.	0.
60000.	94.	0.	37.	45.	14.	3.	0.	1.	0.	0.	0.	0.	0.	0.
65000.	91.	2.	63.	32.	2.	4.	6.	0.	0.	0.	0.	0.	0.	0.
70000.	90.	1.	66.	29.	3.	0.	1.	0.	0.	0.	0.	0.	0.	0.
75000.	81.	0.	57.	40.	2.	0.	1.	0.	0.	0.	0.	0.	0.	0.
80000.	78.	1.	51.	64.	3.	0.	1.	0.	0.	0.	0.	0.	0.	0.
85000.	73.	0.	49.	44.	5.	1.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	71.	1.	44.	45.	7.	1.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	64.	5.	41.	44.	9.	2.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	51.	2.	31.	47.	20.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JALS)
 PERIOD OF RECORD 1962-1967

JUNE

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)						>80	<90	>90	<100	>100	<125	>125	<150	>150	>190
			>20	<30	>30	<40	>40	<50										
6000.	127.	1.	32.	6.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	127.	0.	46.	61.	13.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	127.	0.	38.	41.	20.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12000.	128.	0.	32.	36.	25.	7.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14000.	127.	0.	27.	33.	25.	13.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15000.	124.	0.	27.	29.	27.	10.	7.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16000.	126.	0.	21.	30.	27.	13.	9.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18000.	125.	0.	24.	24.	22.	21.	6.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20000.	125.	0.	21.	23.	22.	21.	9.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25000.	124.	0.	17.	19.	22.	19.	18.	4.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
30000.	120.	0.	8.	12.	27.	16.	17.	16.	17.	17.	16.	16.	16.	16.	16.	16.	16.	16.
35000.	114.	0.	4.	14.	11.	18.	20.	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.	15.
40000.	115.	1.	1.	7.	12.	14.	21.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.	14.
45000.	112.	0.	2.	4.	13.	19.	21.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.	19.
50000.	105.	0.	4.	13.	22.	30.	18.	18.	18.	18.	18.	18.	18.	18.	18.	18.	18.	18.
55000.	99.	0.	26.	36.	25.	6.	4.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
60000.	97.	0.	36.	52.	11.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	95.	1.	32.	57.	11.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	92.	1.	21.	57.	20.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	89.	0.	11.	45.	38.	6.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	79.	0.	5.	41.	49.	4.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
85000.	74.	1.	11.	32.	46.	9.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	66.	0.	9.	36.	30.	24.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	54.	0.	3.	37.	19.	37.	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
100000.	54.	2.	6.	19.	31.	30.	13.	13.	13.	13.	13.	13.	13.	13.	13.	13.	13.	13.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR MIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

JULY

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	≥ 10 < 20	MIND SPEED (KNOTS)				≥ 80 < 90	≥ 90 < 100	≥ 100 < 125	≥ 125 < 150	≥ 150 < 2150	
				≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80						
6000.	149.	1.	82.	17.	1.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	149.	1.	79.	19.	1.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	149.	1.	75.	24.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12000.	149.	1.	71.	26.	2.	0.	0.	0.	0.	0.	0.	0.	0.
14000.	149.	0.	60.	37.	3.	0.	0.	0.	0.	0.	0.	0.	0.
15000.	141.	0.	51.	44.	5.	0.	0.	0.	0.	0.	0.	0.	0.
16000.	149.	1.	54.	39.	7.	0.	0.	0.	0.	0.	0.	0.	0.
18000.	148.	0.	50.	43.	7.	0.	0.	0.	0.	0.	0.	0.	0.
20000.	147.	0.	50.	45.	3.	1.	0.	0.	0.	0.	0.	0.	0.
25000.	139.	0.	40.	42.	16.	2.	0.	0.	0.	0.	0.	0.	0.
30000.	145.	0.	30.	49.	14.	6.	0.	0.	0.	0.	0.	0.	0.
35000.	133.	0.	25.	41.	23.	1.	2.	0.	0.	0.	0.	0.	0.
40000.	137.	0.	25.	32.	31.	7.	6.	0.	0.	0.	0.	0.	0.
45000.	121.	0.	26.	31.	24.	15.	3.	0.	0.	0.	0.	0.	0.
50000.	118.	0.	24.	42.	24.	8.	3.	0.	0.	0.	0.	0.	0.
55000.	104.	0.	25.	61.	11.	4.	0.	0.	0.	0.	0.	0.	0.
60000.	102.	0.	20.	51.	28.	1.	0.	0.	0.	0.	0.	0.	0.
65000.	91.	0.	3.	49.	42.	5.	0.	0.	0.	0.	0.	0.	0.
70000.	89.	0.	1.	28.	66.	4.	0.	0.	0.	0.	0.	0.	0.
75000.	81.	0.	0.	15.	65.	19.	1.	0.	0.	0.	0.	0.	0.
80000.	81.	0.	0.	5.	48.	44.	2.	0.	0.	0.	0.	0.	0.
85000.	72.	0.	0.	0.	36.	53.	14.	0.	0.	0.	0.	0.	0.
90000.	68.	0.	0.	1.	25.	54.	18.	1.	0.	0.	0.	0.	0.
95000.	59.	0.	0.	0.	14.	47.	32.	7.	0.	0.	0.	0.	0.
100000.	57.	0.	0.	0.	7.	42.	37.	14.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

AUGUST

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)						≥ 300 ≥ 270 ≥ 240 ≥ 210 ≥ 180 ≥ 150 ≥ 120 ≥ 90 ≤ 100 ≤ 125 ≤ 150	
			≥ 40 < 40	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100	≥ 100 < 125	≥ 125 < 150
6000.	156.	2.	82.	15.	1.	0.	0.	0.	0.	0.
8000.	156.	0.	76.	22.	1.	0.	0.	0.	0.	0.
10000.	157.	1.	69.	29.	1.	0.	0.	0.	0.	0.
12000.	157.	0.	63.	31.	5.	0.	1.	0.	0.	0.
14000.	157.	0.	51.	46.	2.	1.	0.	0.	0.	0.
15000.	150.	0.	47.	48.	4.	1.	0.	0.	0.	0.
16000.	156.	1.	42.	49.	6.	1.	1.	0.	0.	0.
18000.	156.	0.	46.	45.	8.	1.	1.	0.	0.	0.
20000.	156.	0.	44.	48.	6.	2.	0.	0.	0.	0.
25000.	149.	0.	36.	44.	19.	1.	0.	0.	0.	0.
30000.	152.	0.	25.	41.	22.	1.	1.	0.	0.	0.
35000.	144.	1.	15.	33.	27.	15.	7.	1.	0.	0.
40000.	145.	0.	17.	23.	28.	15.	10.	5.	2.	0.
45000.	134.	0.	12.	42.	18.	13.	8.	7.	1.	0.
50000.	132.	0.	23.	44.	24.	8.	2.	0.	0.	0.
55000.	119.	0.	52.	41.	7.	0.	0.	0.	0.	0.
60000.	110.	0.	30.	62.	8.	0.	0.	0.	0.	0.
65000.	96.	0.	12.	65.	23.	0.	0.	0.	0.	0.
70000.	93.	1.	1.	37.	59.	2.	0.	0.	0.	0.
75000.	85.	0.	0.	15.	71.	14.	0.	0.	0.	0.
80000.	80.	3.	0.	5.	58.	33.	3.	0.	0.	0.
85000.	70.	0.	0.	1.	50.	44.	4.	0.	0.	0.
90000.	64.	0.	0.	2.	25.	64.	9.	0.	0.	0.
95000.	60.	2.	0.	5.	60.	32.	2.	0.	0.	0.
100000.	55.	0.	0.	2.	9.	56.	27.	5.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

SEPTEMBER

GEOMETRIC ALTITUDE MSL FT	TOTAL CBS	CALM	>10 <20	WIND SPEED (KNOTS)						>100 <125	>125 <150	>150	
				>20 <30	>30 <40	>40 <50	>50 <60	>60 <70	>70 <80				
6000-	124.			81.	16.	0.	0.	0.	0.	0.	0.	0.	0.
8000-	123.	0.	68.	29.	2.	0.	0.	0.	0.	0.	0.	0.	0.
10000-	123.	0.	49.	43.	6.	11.	2.	1.	0.	0.	0.	0.	0.
12000-	122.	0.	32.	55.	55.	22.	4.	2.	0.	0.	0.	0.	0.
14000-	122.	0.	26.	45.	45.	20.	4.	4.	0.	0.	0.	0.	0.
15000-	118.	0.	25.	47.	20.	4.	4.	4.	0.	0.	0.	0.	0.
16000-	122.	0.	25.	47.	19.	7.	3.	2.	0.	0.	0.	0.	0.
18000-	121.	0.	23.	46.	18.	10.	3.	2.	1.	0.	0.	0.	0.
20000-	122.	0.	16.	49.	32.	15.	6.	3.	1.	0.	0.	0.	0.
25000-	116.	0.	9.	32.	32.	15.	6.	3.	1.	0.	0.	0.	0.
30000-	120.	0.	8.	21.	21.	7.	9.	2.	0.	0.	0.	0.	0.
35000-	115.	0.	2.	11.	24.	21.	14.	11.	10.	5.	1.	0.	0.
40000-	114.	1.	0.	8.	13.	23.	18.	16.	14.	5.	1.	0.	0.
45000-	106.	0.	3.	8.	15.	28.	17.	15.	8.	3.	2.	0.	0.
50000-	105.	1.	2.	21.	32.	29.	10.	5.	1.	0.	0.	0.	0.
55000-	92.	0.	35.	43.	15.	5.	1.	0.	0.	0.	0.	0.	0.
60000-	83.	0.	52.	46.	2.	0.	0.	0.	0.	0.	0.	0.	0.
65000-	77.	0.	43.	55.	3.	0.	0.	0.	0.	0.	0.	0.	0.
70000-	75.	0.	33.	56.	9.	1.	0.	0.	0.	0.	0.	0.	0.
75000-	73.	0.	29.	47.	23.	1.	0.	0.	0.	0.	0.	0.	0.
80000-	72.	0.	14.	64.	15.	7.	0.	0.	0.	0.	0.	0.	0.
85000-	70.	0.	21.	47.	23.	9.	0.	0.	0.	0.	0.	0.	0.
90000-	66.	0.	24.	41.	23.	12.	0.	0.	0.	0.	0.	0.	0.
95000-	62.	0.	16.	34.	40.	10.	0.	0.	0.	0.	0.	0.	0.
100000-	55.	0.	13.	38.	40.	9.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JALA)
 PERIOD OF RECORD 1962-1967

OCTOBER

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)						≥ 125 ≤ 150
			≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	
6000.	145.	80.	17.	2.	0.	0.	0.	0.	0.
8000.	145.	56.	38.	4.	1.	0.	0.	0.	0.
10000.	145.	0.	44.	11.	3.	0.	0.	0.	0.
12000.	145.	0.	32.	39.	19.	9.	1.	0.	0.
14000.	142.	0.	23.	37.	23.	13.	3.	1.	0.
15000.	137.	0.	23.	36.	23.	15.	3.	1.	0.
16000.	141.	0.	22.	34.	23.	16.	4.	1.	0.
18000.	140.	0.	21.	26.	28.	15.	7.	3.	1.
20000.	140.	0.	21.	20.	27.	16.	10.	4.	2.
25000.	236.	0.	13.	20.	21.	17.	11.	10.	4.
30000.	137.	0.	9.	18.	13.	21.	12.	7.	5.
35000.	132.	0.	2.	17.	19.	8.	19.	11.	6.
40000.	131.	0.	5.	15.	15.	11.	20.	11.	2.
45000.	147.	0.	3.	16.	18.	15.	20.	15.	9.
50000.	107.	0.	7.	23.	24.	25.	7.	7.	4.
55000.	94.	1.	16.	46.	21.	9.	2.	3.	0.
60000.	89.	0.	39.	40.	17.	3.	0.	0.	0.
65000.	82.	0.	56.	29.	5.	0.	0.	0.	0.
70000.	79.	0.	63.	33.	3.	1.	0.	0.	0.
75000.	75.	0.	52.	44.	4.	0.	0.	0.	0.
80000.	71.	0.	32.	49.	15.	3.	0.	0.	0.
85000.	57.	0.	30.	37.	19.	14.	0.	0.	0.
90000.	53.	0.	32.	21.	25.	17.	6.	0.	0.
95000.	46.	0.	28.	22.	15.	24.	9.	2.	0.
100000.	33.	3.	12.	18.	18.	18.	18.	18.	6.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

NOVEMBER

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)						WIND SPEED (KNOTS)					
			≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100	≥ 100 < 125	≥ 125 < 150	≥ 150
6000.	159.	0.	81.	16.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	160.	0.	47.	41.	9.	3.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	159.	0.	26.	37.	30.	6.	2.	0.	0.	0.	0.	0.	0.	0.
12000.	159.	0.	19.	35.	23.	18.	6.	0.	0.	0.	0.	0.	0.	0.
14000.	160.	0.	15.	26.	26.	19.	10.	4.	0.	1.	0.	0.	0.	0.
15000.	156.	0.	15.	23.	27.	19.	10.	5.	1.	0.	0.	0.	0.	0.
16000.	156.	0.	13.	21.	24.	21.	11.	8.	1.	0.	0.	0.	0.	0.
18000.	157.	0.	9.	20.	25.	22.	9.	4.	13.	1.	2.	1.	0.	0.
20000.	157.	0.	6.	21.	20.	21.	12.	13.	13.	3.	1.	1.	0.	0.
25000.	156.	0.	3.	15.	17.	19.	21.	10.	4.	7.	3.	1.	1.	0.
30000.	154.	1.	1.	13.	13.	15.	18.	11.	9.	7.	4.	5.	3.	0.
35000.	138.	0.	1.	7.	14.	12.	16.	15.	15.	1.	5.	6.	6.	0.
40000.	126.	0.	0.	0.	2.	13.	12.	16.	13.	13.	10.	5.	4.	0.
45000.	111.	0.	1.	2.	14.	16.	16.	21.	6.	12.	9.	3.	1.	0.
50000.	99.	0.	1.	4.	17.	20.	19.	20.	16.	4.	0.	1.	0.	0.
55000.	85.	1.	4.	13.	32.	21.	18.	8.	2.	1.	0.	0.	0.	0.
60000.	77.	0.	12.	31.	35.	16.	4.	1.	1.	0.	0.	0.	0.	0.
65000.	74.	1.	28.	50.	8.	9.	3.	0.	0.	0.	0.	0.	0.	0.
70000.	62.	2.	31.	39.	16.	10.	3.	0.	0.	0.	0.	0.	0.	0.
75000.	54.	0.	22.	39.	24.	13.	2.	0.	0.	0.	0.	0.	0.	0.
80000.	50.	2.	24.	26.	12.	12.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	44.	0.	11.	34.	25.	7.	11.	7.	5.	0.	0.	0.	0.	0.
90000.	41.	0.	5.	32.	27.	10.	7.	12.	2.	5.	0.	0.	0.	0.
95000.	41.	0.	7.	17.	27.	10.	7.	17.	17.	2.	0.	0.	0.	0.
100000.	34.	12.	6.	3.	18.	15.	12.	6.	15.	9.	3.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

DECEMBER

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM	WIND SPEED (KNOTS)						WIND SPEED (KNOTS)			
			≥ 10	≥ 20	≥ 30	≥ 40	≥ 50	≥ 60	≥ 70	≥ 80	≥ 90	≥ 100
6000-	148-	1-	67-	22-	8-	3-	0-	0-	0-	0-	0-	0-
8000-	149-	0-	40-	15-	5-	1-	0-	0-	0-	0-	0-	0-
10000-	149-	0-	19-	44-	17-	16-	2-	1-	0-	0-	0-	0-
12000-	149-	0-	15-	32-	26-	14-	11-	3-	0-	0-	0-	0-
14000-	149-	0-	15-	24-	23-	13-	13-	10-	1-	0-	0-	0-
15000-	149-	0-	12-	19-	28-	13-	12-	8-	5-	2-	0-	0-
16000-	148-	0-	9-	22-	26-	16-	7-	13-	4-	3-	1-	0-
18000-	147-	0-	10-	18-	24-	14-	10-	10-	10-	10-	4-	0-
20000-	146-	0-	8-	12-	26-	14-	10-	12-	10-	3-	1-	0-
25000-	138-	0-	5-	13-	17-	13-	17-	9-	3-	5-	8-	0-
30000-	134-	0-	7-	7-	7-	21-	17-	7-	4-	3-	7-	0-
35000-	126-	0-	4-	8-	11-	10-	10-	20-	7-	3-	6-	5-
40000-	116-	0-	1-	7-	11-	12-	14-	19-	7-	8-	6-	3-
45000-	107-	0-	2-	8-	4-	12-	18-	17-	20-	11-	4-	1-
50000-	91-	0-	1-	9-	11-	18-	23-	21-	11-	6-	1-	0-
55000-	81-	1-	4-	10-	30-	26-	15-	7-	1-	0-	0-	0-
60000-	73-	0-	8-	36-	26-	22-	7-	1-	0-	0-	0-	0-
65000-	65-	0-	18-	45-	32-	3-	2-	0-	0-	0-	0-	0-
70000-	63-	0-	32-	52-	11-	3-	2-	0-	0-	0-	0-	0-
75000-	61-	0-	34-	36-	15-	13-	2-	0-	0-	0-	0-	0-
80000-	57-	0-	23-	39-	25-	9-	4-	2-	0-	0-	0-	0-
85000-	53-	0-	19-	25-	23-	21-	6-	6-	2-	0-	0-	0-
90000-	52-	0-	10-	17-	17-	23-	13-	8-	6-	4-	2-	0-
95000-	42-	0-	2-	5-	21-	7-	26-	10-	10-	5-	5-	3-
100000-	37-	0-	3-	16-	5-	11-	27-	11-	11-	11-	11-	11-

UPPER AIR WIND DATA AT SELECTED LEVELS BY SEASONS
JALLEN SITE (JALS)
PERIOD OF RECORD 1962-1967

WINTER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)			CONSTANCY (PERCENT)	VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	STANDARD VECTOR DEVIATION (KNOTS)
					+N	-S	+E				
6000-	378-	32-	0-	0-0	-3-9	271-	4-	43-	9-	9-	10-
8000-	378-	43-	1-	1-0	-8-6	277-	9-	14-	14-	60-	14-
10000-	377-	54-	1-	3-4	-13-0	284-	13-	19-	17-	70-	17-
12000-	376-	60-	1-	5-0	-16-6	287-	17-	24-	20-	73-	20-
14000-	376-	63-	1-	5-7	-19-9	286-	21-	28-	24-	73-	24-
15000-	375-	76-	2-	5-9	-21-4	285-	22-	30-	26-	73-	26-
16000-	375-	90-	3-	6-0	-22-8	285-	24-	32-	27-	74-	27-
18000-	373-	102-	1-	6-3	-25-1	284-	26-	35-	30-	73-	30-
20000-	371-	104-	2-	6-2	-27-5	283-	28-	39-	33-	72-	33-
25000-	360-	140-	3-	5-2	-34-6	279-	35-	48-	41-	73-	41-
30000-	348-	161-	2-	4-0	-41-0	276-	41-	55-	47-	74-	47-
35000-	329-	174-	2-	3-9	-46-8	275-	47-	60-	48-	79-	48-
40000-	311-	148-	4-	2-0	-51-0	272-	51-	60-	48-	86-	48-
45000-	292-	137-	4-	1-7	-49-6	272-	50-	56-	34-	89-	34-
50000-	250-	100-	7-	2-5	-45-6	273-	46-	50-	34-	91-	28-
55000-	214-	97-	0-	2-0	-34-3	273-	34-	38-	25-	90-	25-
60000-	187-	83-	4-	2-6	-21-1	277-	21-	25-	19-	86-	19-
65000-	171-	78-	0-	2-6	-15-4	279-	16-	20-	16-	80-	16-
70000-	161-	40-	1-	3-0	-9-4	288-	10-	15-	15-	64-	15-
75000-	149-	47-	1-	1-9	-10-1	281-	10-	16-	16-	64-	16-
80000-	141-	73-	1-	0-7	-12-6	273-	13-	19-	19-	66-	19-
85000-	131-	75-	2-	-0-3	-15-6	269-	16-	22-	21-	70-	21-
90000-	121-	86-	4-	-1-6	-20-5	266-	21-	28-	26-	73-	26-
95000-	95-	108-	1-	-4-2	-28-9	262-	29-	36-	33-	80-	33-
100000-	77-	126-	3-	-4-6	-35-7	263-	36-	45-	39-	80-	39-

UPPER AIR WIND DATA AT SELECTED LEVELS BY SEASONS
JALLEN SITE (JAL)
— PERIOD OF RECORD 1962-1967

SPRING

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)	VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTOR DEVIAT. (KNOT)
4000	428.	32.	0.	-3.8	217.	5.	9.	10.	12.
8000	424.	41.	1.	-3.8	-6.8	241.	8.	12.	64.
10000	422.	54.	1.	-3.6	-11.3	252.	12.	14.	73.
12000	419.	67.	1.	-3.8	-15.6	256.	16.	18.	77.
14000	419.	69.	2.	-4.6	-19.7	257.	20.	21.	79.
15000	412.	73.	2.	-4.8	-21.6	257.	22.	22.	80.
16000	416.	78.	1.	-5.3	-23.5	257.	24.	23.	81.
18000	415.	90.	0.	-5.5	-26.7	258.	25.	25.	82.
20000	414.	99.	2.	-6.1	-28.8	258.	30.	22.	83.
25000	407.	110.	0.	-7.4	-36.7	259.	37.	23.	83.
30000	410.	134.	0.	-9.4	-44.3	258.	45.	24.	84.
35000	390.	160.	4.	-9.3	-52.4	260.	53.	45.	85.
40000	384.	170.	0.	-9.6	-55.2	260.	56.	41.	89.
45000	350.	156.	0.	-10.2	-51.0	259.	52.	32.	92.
50000	338.	116.	0.	-8.7	-46.0	259.	47.	50.	94.
55000	311.	105.	0.	-5.8	-33.0	260.	33.	37.	91.
60000	288.	96.	0.	-3.3	-17.3	259.	18.	22.	91.
65000	263.	83.	0.	-0.7	-8.6	265.	9.	15.	58.
70000	256.	78.	0.	-1.4	-1.8	232.	2.	12.	59.
75000	229.	73.	0.	-1.0	-1.8	241.	2.	12.	16.
80000	210.	73.	0.	-1.9	-2.6	235.	3.	13.	24.
85000	190.	62.	1.	-2.4	-3.7	237.	4.	12.	33.
90000	179.	63.	0.	-1.5	-6.8	257.	7.	15.	45.
95000	160.	88.	0.	-2.3	-9.1	256.	9.	26.	58.
100000	121.	115.	0.	-3.5	-13.5	255.	14.	24.	67.

UPPER AIR WIND DATA AT SELECTED LEVELS BY SEASONS
JALLEN SITE (JALA)
PERIOD OF RECORD 1962-1967

SUMMER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)				RESULTANT DIRECTION (DEGREES)	MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTOR DEVIATE (KNOTS)
				+N	-S	+E	-W					
6000.	432-	31.	0.	-3.0	-0.4	187.	3.	7.	44.	8.	9.	8.
8000.	432-	35.	0.	-3.6	-1.8	206.	4.	8.	48.	9.	10.	9.
10000.	433-	39.	0.	-2.7	-2.3	221.	4.	9.	39.	10.	12.	10.
12000.	434-	45.	0.	-2.2	-2.0	223.	3.	10.	29.	12.	14.	12.
14000.	433-	45.	1.	-2.1	-1.4	214.	3.	12.	21.	14.	15.	14.
15000.	415-	47.	1.	-2.4	-1.3	209.	3.	13.	22.	15.	16.	15.
16000.	431-	58.	0.	-2.6	-1.6	212.	3.	13.	23.	16.	17.	16.
18000.	429-	58.	1.	-2.8	-2.3	220.	4.	14.	26.	17.	17.	17.
20000.	428-	61.	1.	-3.2	-3.4	227.	5.	14.	32.	19.	20.	19.
25000.	412-	71.	1.	-3.5	-6.2	240.	7.	17.	43.	21.	23.	23.
30000.	417-	80.	1.	-4.2	-8.7	244.	10.	21.	47.	28.	28.	28.
35000.	391-	93.	0.	-4.5	-12.5	250.	13.	26.	52.	32.	32.	32.
40000.	397-	116.	0.	-3.8	-15.1	256.	16.	29.	53.	34.	34.	34.
45000.	367-	106.	1.	-3.1	-14.4	258.	15.	29.	52.	34.	34.	34.
50000.	355-	70.	1.	-3.0	-7.8	249.	8.	22.	38.	24.	24.	24.
55000.	322-	56.	1.	-3.4	0.9	165.	4.	13.	26.	15.	15.	15.
60000.	309-	32.	1.	-3.0	9.3	108.	10.	13.	74.	11.	11.	11.
65000.	282-	34.	0.	-1.8	14.4	97.	14.	16.	92.	9.	9.	9.
70000.	274-	41.	0.	-1.5	18.0	95.	18.	19.	95.	9.	9.	9.
75000.	255-	42.	4.	-0.8	21.9	92.	22.	22.	96.	8.	8.	8.
80000.	240-	45.	0.	-1.4	24.4	93.	24.	25.	98.	9.	9.	9.
85000.	216-	43.	0.	-0.4	26.2	91.	26.	27.	97.	10.	10.	10.
90000.	198-	51.	4.	0.2	29.0	90.	29.	30.	98.	11.	11.	11.
95000.	178-	52.	0.	-0.6	32.1	91.	32.	33.	98.	12.	12.	12.
100000.	166-	58.	0.	-2.2	34.4	94.	34.	35.	98.	13.	13.	13.

UPPER AIR WIND DATA AT SELECTED LEVELS BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

FALL

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	MAXIMUM SPEED (KNOTS)	MINIMUM SPEED (KNOTS)	MEAN WIND COMPONENTS (KNOTS)	RESULTANT DIRECTION (DEGREES)	VECTOR MEAN SPEED (KNOTS)	SCALAR MEAN SPEED (KNOTS)	CONSTANCY (PERCENT)	STANDARD VECTOR DEVIATION (KNOTS)
+N	-S	+E	-W						
6000.	428.	31.	0.	-1.4	-1.7	229.	2.	7.	8.
8000.	428.	38.	0.	-1.6	-4.6	251.	5.	10.	49.
10000.	427.	45.	1.	-0.4	-6.7	267.	7.	13.	50.
12000.	426.	49.	1.	-1.0	-8.4	277.	8.	16.	51.
14000.	424.	71.	1.	1.9	-9.5	281.	10.	19.	52.
15000.	411.	67.	1.	1.9	-10.7	280.	11.	20.	53.
16000.	419.	70.	1.	2.0	-11.4	280.	12.	21.	54.
18000.	418.	84.	1.	2.5	-13.4	281.	14.	23.	58.
20000.	419.	90.	1.	2.1	-15.3	278.	15.	26.	60.
25000.	408.	110.	1.	2.4	-20.2	277.	20.	32.	63.
30000.	411.	132.	0.	1.9	-25.5	274.	26.	39.	65.
35000.	385.	146.	5.	2.4	-32.2	274.	32.	46.	70.
40000.	371.	144.	0.	3.6	-37.7	275.	38.	49.	77.
45000.	334.	117.	2.	2.5	-36.5	274.	37.	44.	83.
50000.	311.	96.	0.	3.1	-28.0	276.	28.	34.	83.
55000.	271.	89.	0.	2.7	-16.9	279.	17.	22.	79.
60000.	249.	61.	1.	2.0	-7.3	286.	8.	15.	52.
65000.	233.	43.	0.	1.2	-2.6	296.	3.	12.	53.
70000.	216.	41.	0.	1.3	-1.6	309.	2.	12.	18.
75000.	202.	47.	1.	0.3	-0.5	297.	1.	13.	5.
80000.	193.	44.	0.	0.0	-0.4	276.	0.	16.	3.
85000.	171.	63.	1.	-0.3	-2.8	264.	3.	19.	22.
90000.	160.	79.	2.	-1.2	-4.9	256.	5.	21.	24.
95000.	149.	84.	3.	-2.0	-7.7	256.	8.	25.	32.
100000.	122.	94.	0.	-3.7	-9.5	249.	10.	27.	38.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

WINTER

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM
		≥ 360	≥ 30	≥ 60	≥ 90	≥ 120	≥ 150	≥ 180	≥ 210	
6000-	378-	7.	5.	1.	2.	1.	2.	1.	2.	1.
8000-	378-	7.	3.	2.	2.	1.	2.	1.	2.	1.
10000-	377-	6.	5.	1.	3.	1.	2.	1.	2.	0.
12000-	376-	5.	5.	2.	3.	1.	2.	0.	2.	0.
14000-	376-	5.	5.	2.	2.	1.	1.	0.	2.	0.
15000-	375-	5.	5.	2.	2.	1.	1.	1.	2.	0.
16000-	375-	6.	6.	2.	2.	1.	1.	1.	2.	0.
18000-	373-	6.	6.	2.	2.	1.	1.	1.	2.	0.
20000-	371-	6.	6.	2.	2.	1.	1.	1.	2.	0.
25000-	360-	4.	4.	2.	2.	1.	1.	0.	3.	0.
30000-	348-	5.	3.	2.	2.	1.	1.	0.	0.	1.
35000-	329-	4.	2.	2.	1.	1.	0.	0.	0.	0.
40000-	311-	1.	2.	0.	0.	0.	0.	0.	0.	0.
45000-	292-	1.	1.	0.	0.	0.	0.	0.	1.	0.
50000-	250-	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000-	214-	2.	0.	0.	0.	0.	0.	0.	0.	0.
60000-	187-	2.	2.	0.	1.	0.	0.	1.	1.	0.
65000-	171-	5.	3.	1.	1.	2.	0.	1.	1.	0.
70000-	161-	7.	3.	9.	3.	1.	1.	1.	4.	0.
75000-	149-	6.	5.	9.	3.	1.	1.	1.	1.	0.
80000-	141-	4.	4.	6.	4.	0.	0.	0.	2.	0.
85000-	131-	2.	5.	6.	5.	1.	1.	1.	5.	0.
90000-	121-	2.	2.	6.	6.	1.	1.	1.	4.	0.
95000-	95-	1.	1.	6.	3.	0.	0.	0.	2.	0.
100000-	77-	0.	0.	5.	5.	1.	1.	1.	3.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

SPRING

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)										CALM
		≥ 360	≤ 30	≥ 60	≤ 90	≥ 120	≤ 150	≥ 180	≤ 210	≥ 240	≤ 270	
6000.	428.	5.	3.	2.	4.	16.	19.	16.	13.	25.	17.	6.
8000.	424.	5.	2.	2.	2.	6.	6.	6.	6.	23.	28.	6.
10000.	422.	3.	1.	1.	1.	2.	2.	5.	5.	20.	32.	4.
12000.	419.	4.	1.	1.	1.	1.	1.	1.	5.	21.	32.	0.
14000.	419.	3.	1.	1.	1.	1.	1.	1.	4.	22.	33.	4.
15000.	412.	3.	2.	1.	1.	1.	1.	1.	1.	4.	19.	8.
16000.	416.	2.	3.	1.	0.	1.	1.	1.	4.	20.	36.	9.
18000.	415.	1.	2.	2.	0.	4.	1.	1.	3.	18.	38.	20.
20000.	414.	1.	1.	2.	1.	0.	0.	0.	1.	4.	43.	19.
25000.	407.	2.	2.	1.	2.	0.	0.	1.	2.	17.	43.	20.
30000.	410.	3.	2.	2.	2.	0.	0.	0.	2.	1.	17.	43.
35000.	390.	2.	2.	2.	0.	0.	0.	1.	2.	13.	45.	22.
40000.	384.	2.	1.	1.	0.	0.	1.	0.	0.	2.	11.	50.
45000.	350.	1.	0.	0.	0.	0.	0.	0.	1.	1.	12.	57.
50000.	338.	0.	0.	0.	0.	0.	0.	0.	1.	1.	11.	54.
55000.	311.	0.	0.	0.	0.	0.	1.	0.	0.	3.	14.	46.
60000.	288.	1.	1.	1.	2.	2.	3.	3.	4.	4.	14.	39.
65000.	264.	4.	3.	5.	4.	3.	8.	8.	8.	10.	17.	16.
70000.	256.	4.	5.	14.	12.	7.	7.	5.	4.	20.	27.	6.
75000.	229.	2.	7.	17.	16.	6.	5.	4.	7.	19.	18.	9.
80000.	210.	4.	5.	12.	14.	10.	7.	6.	8.	17.	10.	4.
85000.	190.	3.	2.	8.	17.	5.	6.	8.	13.	22.	9.	4.
90000.	179.	1.	4.	8.	11.	3.	1.	1.	11.	25.	20.	6.
95000.	160.	1.	1.	8.	9.	4.	4.	4.	12.	31.	15.	8.
100000.	121.	0.	3.	10.	4.	2.	3.	3.	12.	33.	17.	7.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

SUMMER

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)						> 330 < 360 CALM	
		> 360	2 30 < 60	2 90 < 120	2 120 < 150	2 150 < 180	> 210 < 240		
6000.	432.	6.	4.	4.	4.	10.	18.	13.	6.
8000.	432.	3.	4.	4.	5.	7.	17.	14.	6.
10000.	433.	4.	7.	4.	6.	8.	10.	12.	15.
12000.	434.	6.	6.	6.	9.	7.	7.	10.	11.
14000.	433.	9.	7.	11.	9.	6.	7.	8.	10.
15000.	415.	7.	11.	9.	9.	8.	7.	8.	12.
16000.	431.	7.	9.	10.	8.	6.	10.	15.	10.
18000.	429.	6.	7.	9.	11.	7.	8.	10.	15.
20000.	428.	5.	7.	10.	8.	5.	12.	15.	13.
25000.	412.	4.	5.	7.	7.	6.	10.	18.	14.
30000.	417.	4.	5.	5.	4.	6.	9.	9.	17.
35000.	391.	4.	4.	3.	6.	6.	8.	6.	20.
40000.	397.	6.	1.	3.	6.	5.	6.	5.	18.
45000.	367.	4.	5.	4.	5.	5.	7.	14.	15.
50000.	355.	8.	6.	5.	6.	7.	5.	7.	14.
55000.	322.	3.	6.	1.	15.	13.	11.	8.	17.
60000.	309.	3.	6.	2.	21.	32.	16.	8.	3.
65000.	282.	0.	2.	2.	32.	45.	13.	2.	0.
70000.	274.	0.	1.	1.	36.	54.	5.	1.	1.
75000.	255.	0.	0.	0.	36.	60.	3.	0.	0.
80000.	240.	0.	1.	1.	33.	60.	5.	0.	0.
85000.	216.	0.	0.	0.	42.	53.	3.	1.	0.
90000.	198.	0.	1.	1.	43.	22.	3.	0.	0.
95000.	178.	1.	2.	2.	38.	57.	2.	1.	0.
100000.	166.	0.	2.	2.	34.	62.	1.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 JALEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

FALL

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WIND DIRECTIONS (DEGREES)								CALM					
		≥ 360	≥ 30	≥ 60	≥ 90	≥ 120	≥ 150	≥ 180	≥ 210	≥ 240	≥ 270	≥ 300	< 330	≥ 330	< 360
6000.	428.	6.	8.	3.	4.	3.	4.	11.	14.	12.	10.	6.	9.	9.	0.
8000.	428.	6.	4.	3.	2.	5.	8.	17.	14.	14.	13.	8.	9.	9.	0.
10000.	427.	6.	5.	4.	3.	3.	2.	7.	13.	18.	12.	15.	12.	9.	0.
12000.	426.	8.	5.	5.	4.	4.	1.	2.	7.	11.	20.	14.	13.	10.	0.
14000.	424.	8.	5.	4.	4.	3.	1.	1.	8.	12.	20.	14.	12.	10.	0.
15000.	411.	8.	6.	5.	4.	3.	1.	1.	6.	14.	18.	16.	13.	9.	0.
16000.	419.	9.	6.	4.	2.	4.	1.	1.	6.	14.	18.	16.	13.	9.	0.
18000.	413.	8.	7.	2.	2.	1.	1.	1.	4.	15.	21.	14.	15.	10.	0.
20000.	419.	10.	5.	3.	2.	2.	1.	1.	2.	3.	14.	23.	13.	17.	8.
25000.	408.	6.	4.	3.	1.	1.	1.	1.	1.	2.	14.	23.	15.	16.	11.
30000.	411.	7.	3.	2.	1.	0.	1.	1.	1.	2.	15.	23.	20.	13.	0.
35000.	385.	7.	2.	2.	0.	1.	0.	1.	0.	2.	13.	25.	23.	17.	8.
40000.	371.	4.	2.	1.	0.	0.	1.	0.	1.	1.	10.	8.	30.	26.	10.
45000.	336.	4.	0.	0.	0.	0.	0.	0.	1.	1.	27.	35.	25.	16.	6.
50000.	311.	1.	1.	0.	0.	0.	0.	1.	0.	1.	9.	29.	30.	17.	0.
55000.	271.	7.	3.	1.	0.	0.	1.	1.	3.	9.	25.	25.	16.	5.	1.
60000.	249.	7.	6.	5.	6.	3.	4.	5.	4.	10.	11.	21.	18.	5.	0.
65000.	233.	3.	6.	9.	13.	5.	5.	3.	3.	5.	15.	16.	9.	11.	0.
70000.	216.	5.	9.	17.	10.	5.	3.	1.	4.	7.	17.	14.	7.	3.	0.
75000.	202.	3.	5.	20.	15.	4.	3.	2.	1.	4.	19.	17.	4.	3.	0.
80000.	193.	1.	7.	24.	16.	4.	1.	3.	4.	2.	21.	14.	3.	2.	0.
85000.	17.	2.	6.	22.	17.	4.	3.	3.	4.	2.	23.	15.	3.	3.	0.
90000.	166.	3.	4.	16.	19.	7.	1.	3.	4.	1.	28.	28.	2.	1.	0.
95000.	149.	1.	2.	17.	21.	4.	1.	3.	4.	1.	25.	16.	2.	0.	0.
100000.	122.	2.	1.	11.	24.	10.	1.	2.	1.	2.	25.	16.	2.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
JAILEN SITE (JAL)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	WINTER									
		CALM	≥ 1	≥ 10	≥ 20	≥ 30	≥ 40	≥ 50	≥ 60	≥ 70	≥ 80
6000.	378.	26.	8.	1.	0.	0.	0.	0.	0.	0.	0.
8000.	378.	31.	45.	18.	5.	1.	0.	0.	0.	0.	0.
10000.	377.	0.	16.	40.	28.	12.	2.	1.	0.	0.	0.
12000.	376.	0.	12.	28.	31.	18.	9.	2.	0.	0.	0.
14000.	376.	0.	10.	20.	27.	20.	14.	7.	1.	0.	0.
15000.	375.	0.	7.	18.	27.	23.	14.	7.	3.	1.	0.
16000.	375.	0.	6.	17.	24.	25.	14.	12.	2.	1.	0.
18000.	373.	0.	5.	14.	20.	21.	17.	10.	8.	2.	0.
20000.	371.	0.	5.	9.	20.	20.	16.	13.	10.	2.	1.
25000.	360.	0.	3.	9.	13.	14.	18.	14.	8.	6.	7.
30000.	348.	0.	5.	4.	3.	16.	15.	14.	7.	10.	8.
35000.	329.	0.	2.	7.	10.	10.	9.	17.	9.	9.	7.
40000.	311.	0.	2.	4.	8.	11.	12.	19.	11.	9.	7.
45000.	292.	0.	2.	5.	5.	10.	15.	18.	18.	13.	11.
50000.	250.	0.	1.	6.	9.	12.	21.	20.	16.	4.	1.
55000.	214.	0.	4.	10.	21.	17.	25.	11.	6.	1.	0.
60000.	187.	0.	11.	32.	25.	18.	9.	3.	0.	1.	0.
65000.	171.	1.	19.	37.	24.	13.	5.	0.	1.	0.	0.
70000.	161.	0.	34.	40.	15.	10.	1.	0.	0.	0.	0.
75000.	149.	0.	34.	33.	20.	10.	3.	0.	0.	0.	0.
80000.	141.	0.	24.	35.	26.	8.	5.	1.	0.	0.	0.
85000.	131.	0.	21.	30.	21.	16.	5.	1.	0.	0.	0.
90000.	121.	0.	13.	26.	20.	17.	11.	6.	3.	2.	0.
95000.	95.	0.	9.	19.	17.	14.	17.	7.	5.	2.	0.
100000.	77.	0.	6.	12.	16.	12.	19.	14.	5.	3.	4.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

SPRING

GEOMETRIC ALTITUDE MSL FT	TOTAL 085	WIND SPEED (KNOTS)																									
		≤ 10	> 10	≤ 20	> 20	≤ 30	> 30	≤ 40	> 40	≤ 50	> 50	≤ 60	> 60	≤ 70	> 70	≤ 80	> 80	≤ 90	> 90	≤ 100	> 100	≤ 125	> 125	≤ 150	> 150	≤ 175	> 175
6000.	428.	0.	59.	32.	9.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	424.	0.	42.	44.	12.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	422.	0.	25.	45.	20.	8.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12000.	419.	0.	17.	37.	23.	15.	7.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14000.	419.	0.	13.	26.	26.	15.	15.	5.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
15000.	412.	0.	11.	23.	24.	19.	14.	7.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
16000.	416.	0.	7.	24.	22.	20.	15.	8.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
18000.	415.	0.	3.	20.	22.	21.	15.	11.	6.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
20000.	414.	0.	3.	16.	19.	22.	16.	11.	8.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
25000.	407.	0.	3.	12.	14.	15.	17.	13.	13.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
30000.	410.	0.	1.	8.	10.	12.	16.	13.	12.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
35000.	390.	0.	1.	5.	9.	8.	11.	14.	11.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
40000.	384.	1.	1.	3.	5.	12.	11.	12.	10.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
45000.	350.	1.	2.	4.	7.	13.	14.	13.	19.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
50000.	338.	1.	1.	1.	4.	10.	15.	20.	19.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
55000.	311.	2.	2.	16.	22.	18.	15.	14.	19.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
60000.	288.	1.	17.	36.	24.	12.	5.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
65000.	263.	2.	40.	36.	11.	6.	3.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
70000.	256.	1.	50.	34.	10.	2.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
75000.	229.	1.	44.	43.	7.	2.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
80000.	210.	1.	43.	41.	8.	2.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
85000.	190.	0.	45.	36.	12.	5.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
90000.	179.	1.	34.	39.	16.	7.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
95000.	160.	4.	30.	37.	14.	9.	4.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
100000.	121.	2.	20.	37.	17.	10.	8.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

SUMMER

GEOMETRIC ALTITUDE HSL FT	TOTAL OBS	WIND SPEED (KNOTS)										WIND SPEED (KNOTS)												
		≤ 10	< 20	≥ 20	< 30	≥ 30	< 40	≥ 40	< 50	≥ 50	< 60	≥ 60	< 70	≥ 70	< 80	≥ 80	< 90	≥ 90	< 100	≥ 100	< 125	≥ 125	< 150	≥ 150
6000.	432.																							
8000.	432.																							
10000.	433.	1.	0.	68.	21.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12000.	434.	0.	0.	62.	27.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14000.	433.	0.	0.	57.	31.	6.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15000.	415.	0.	0.	47.	39.	9.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16000.	431.	0.	0.	40.	40.	13.	4.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18000.	429.	0.	0.	41.	38.	12.	7.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20000.	428.	0.	0.	39.	40.	10.	7.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25000.	412.	0.	0.	32.	36.	19.	7.	5.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30000.	417.	0.	0.	22.	35.	21.	11.	5.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35000.	391.	1.	1.	15.	30.	21.	15.	9.	5.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	397.	0.	0.	15.	21.	24.	12.	12.	6.	5.	3.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45000.	367.	0.	0.	14.	27.	19.	15.	10.	9.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	355.	0.	0.	17.	34.	23.	14.	7.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	322.	0.	0.	35.	46.	14.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60000.	309.	0.	0.	28.	55.	16.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	282.	0.	0.	16.	57.	25.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	274.	1.	8.	41.	48.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	255.	0.	0.	4.	25.	58.	13.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	240.	1.	2.	17.	52.	27.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	216.	0.	0.	4.	12.	44.	35.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	198.	0.	0.	3.	13.	27.	47.	9.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	178.	1.	1.	12.	12.	48.	22.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	166.	2.	2.	7.	16.	43.	26.	7.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

FALL

GEOMETRIC ALTITUDE MSL FT	TOTAL OBS	CALM						WIND SPEED (KNOTS)					
		< 10	< 20	< 30	< 40	> 30	> 40	< 50	< 60	> 50	> 60	< 70	> 70
6000-	428.												
8000-	423.												
10000-	427.												
12000-	426.												
14000-	424.												
15000-	411.												
16000-	419.												
18000-	418.												
20000-	419.												
25000+	408.												
30000+	411.												
35000+	385.												
40000+	371.												
45000+	334.												
50000+	311.												
55000+	271.												
60000+	249.												
65000+	233.												
70000+	216.												
75000+	202.												
80000+	193.												
85000+	171.												
90000+	160.												
95000+	149.												
100000+	122.												

SECTION II

UPPER AIR TEMPERATURE DATA

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B. By Seasons

1. Mean, Median and Extreme Upper Air Temperatures ($^{\circ}$ Celsius) at Selected Levels ----- 96

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (°CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JANUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	116.	13.	4.	4.	-6.
8000.	116.	9.	1.	2.	-10.
10000.	117.	6.	-2.	-1.	-14.
12000.	116.	2.	-5.	-4.	-16.
14000.	116.	-1.	-9.	-8.	-20.
15000.	115.	-3.	-11.	-10.	-23.
16000.	116.	-2.	-13.	-12.	-25.
18000.	116.	-9.	-17.	-16.	-30.
20000.	115.	-12.	-22.	-21.	-36.
25000.	115.	-24.	-33.	-33.	-45.
30000.	110.	-37.	-45.	-44.	-53.
35000.	103.	-44.	-53.	-53.	-61.
40000.	102.	-46.	-57.	-58.	-68.
45000.	95.	-51.	-59.	-60.	-71.
50000.	84.	-56.	-63.	-63.	-71.
55000.	69.	-55.	-64.	-65.	-75.
60000.	56.	-59.	-64.	-64.	-72.
65000.	50.	-57.	-62.	-62.	-67.
70000.	44.	-54.	-60.	-60.	-67.
75000.	38.	-53.	-58.	-58.	-63.
80000.	37.	-45.	-57.	-57.	-61.
85000.	35.	-48.	-55.	-56.	-61.
90000.	31.	-48.	-53.	-52.	-60.
95000.	22.	-45.	-51.	-52.	-55.
100000.	15.	-45.	-49.	-49.	-57.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES ($^{\circ}$ CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALIFEN SITE (JAI)
 PERIOD OF RECORD 1962-1967

FEBRUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM	FEBRUARY	
						1	2
6000.	112.	18.	5.	5.	-6.	-10.	
8000.	112.	12.	1.	1.	-10.	-13.	
10000.	112.	7.	-3.	-3.	-13.	-17.	
12000.	112.	3.	-6.	-5.	-17.	-21.	
14000.	112.	-1.	-10.	-9.	-21.	-24.	
15000.	111.	-3.	-12.	-11.	-24.	-26.	
16000.	112.	-4.	-14.	-13.	-31.	-35.	
18000.	111.	-9.	-18.	-18.	-35.	-47.	
20000.	111.	-12.	-22.	-22.	-45.	-52.	
25000.	107.	-24.	-34.	-34.	-62.	-67.	
30000.	105.	-36.	-45.	-45.	-71.	-77.	
35000.	100.	-39.	-54.	-55.	-80.	-87.	
40000.	93.	-45.	-56.	-56.	-87.	-93.	
45000.	90.	-51.	-58.	-58.	-93.	-98.	
50000.	74.	-52.	-62.	-62.	-98.	-105.	
55000.	64.	-56.	-65.	-65.	-105.	-112.	
60000.	57.	-53.	-65.	-65.	-112.	-118.	
65000.	55.	-56.	-63.	-63.	-118.	-125.	
70000.	54.	-54.	-61.	-61.	-125.	-132.	
75000.	50.	-51.	-58.	-58.	-132.	-139.	
80000.	47.	-50.	-56.	-56.	-139.	-146.	
85000.	44.	-48.	-53.	-53.	-146.	-153.	
90000.	39.	-45.	-51.	-51.	-153.	-160.	
95000.	30.	-42.	-49.	-49.	-160.	-167.	
100000.	24.	-42.	-46.	-46.	-167.	-174.	

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (°CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM	
					MARCH	JULY
6000.	161.	21.	8.	9.	-9.	-9.
8000.	161.	15.	4.	5.	-15.	-15.
10000.	160.	10.	-0.	0.	-18.	-18.
12000.	159.	6.	-4.	-4.	-24.	-24.
14000.	159.	1.	-8.	-7.	-28.	-28.
15000.	156.	-2.	-10.	-9.	-29.	-29.
16000.	160.	-4.	-12.	-12.	-29.	-29.
18000.	159.	-9.	-17.	-16.	-31.	-31.
20000.	157.	-13.	-21.	-21.	-36.	-36.
25000.	152.	-24.	-32.	-32.	-45.	-45.
30000.	154.	-35.	-43.	-43.	-53.	-53.
35000.	147.	-44.	-54.	-54.	-61.	-61.
40000.	145.	-43.	-58.	-60.	-69.	-69.
45000.	132.	-50.	-60.	-60.	-70.	-70.
50000.	129.	-51.	-63.	-63.	-71.	-71.
55000.	112.	-57.	-64.	-64.	-74.	-74.
60000.	102.	-56.	-64.	-64.	-71.	-71.
65000.	88.	-56.	-62.	-61.	-66.	-66.
70000.	85.	-54.	-59.	-59.	-64.	-64.
75000.	69.	-51.	-56.	-56.	-65.	-65.
80000.	58.	-49.	-54.	-54.	-57.	-57.
85000.	48.	-46.	-52.	-52.	-56.	-56.
90000.	44.	-43.	-49.	-49.	-54.	-54.
95000.	40.	-41.	-47.	-47.	-52.	-52.
100000.	30.	-36.	-44.	-43.	-52.	-52.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES ($^{\circ}$ CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000	139.	21.	13.	13.	4.
8000	137.	16.	8.	8.	-2.
10000	137.	12.	3.	3.	-7.
12000	137.	7.	-1.	-1.	-12.
14000	137.	2.	-5.	-5.	-14.
15000	136.	0.	-7.	-7.	-16.
16000	136.	-2.	-9.	-9.	-18.
18000	137.	-7.	-13.	-13.	-23.
20000	137.	-11.	-18.	-18.	-28.
25000	136.	-24.	-29.	-29.	-41.
30000	135.	-35.	-41.	-41.	-46.
35000	130.	-45.	-52.	-52.	-58.
40000	124.	-48.	-58.	-58.	-66.
45000	115.	-52.	-60.	-59.	-70.
50000	110.	-54.	-63.	-63.	-75.
55000	103.	-57.	-64.	-64.	-74.
60000	93.	-57.	-64.	-65.	-71.
65000	84.	-55.	-61.	-61.	-67.
70000	82.	-50.	-58.	-58.	-63.
75000	78.	-50.	-55.	-55.	-60.
80000	75.	-47.	-52.	-52.	-59.
85000	70.	-45.	-50.	-49.	-55.
90000	64.	-41.	-37.	-47.	-52.
95000	57.	-39.	-44.	-44.	-50.
100000	41.	-36.	-41.	-41.	-50.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (°CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

MAY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	128.	27.	18.	18.	5.
8000.	127.	21.	13.	13.	-1.
10000.	126.	15.	8.	9.	-6.
12000.	125.	10.	3.	4.	-11.
14000.	125.	6.	-2.	-1.	-13.
15000.	122.	3.	-4.	-3.	-15.
16000.	122.	1.	-6.	-6.	-16.
18000.	121.	-4.	-10.	-10.	-21.
20000.	121.	-8.	-15.	-14.	-26.
25000.	119.	-20.	-26.	-26.	-32.
30000.	121.	-30.	-37.	-38.	-45.
35000.	114.	-42.	-49.	-48.	-55.
40000.	115.	-46.	-58.	-58.	-64.
45000.	103.	-55.	-62.	-61.	-68.
50000.	100.	-57.	-63.	-63.	-70.
55000.	98.	-58.	-64.	-65.	-71.
60000.	94.	-57.	-65.	-65.	-70.
65000.	91.	-56.	-61.	-61.	-68.
70000.	90.	-53.	-57.	-57.	-63.
75000.	81.	-49.	-54.	-54.	-60.
80000.	78.	-47.	-51.	-51.	-56.
85000.	73.	-44.	-48.	-48.	-54.
90000.	71.	-41.	-46.	-46.	-50.
95000.	63.	-36.	-43.	-43.	-48.
100000.	50.	-36.	-40.	-41.	-46.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (°CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JUNE

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	128.	31.	21.	21.	9.
8000.	126.	24.	17.	17.	5.
10000.	126.	19.	12.	12.	2.
12000.	126.	12.	7.	7.	-1.
14000.	125.	7.	2.	2.	-5.
15000.	122.	4.	-0.	-0.	-7.
16000.	124.	1.	-2.	-2.	-9.
18000.	123.	-3.	-7.	-7.	-12.
20000.	123.	-5.	-11.	-11.	-18.
25000.	122.	-13.	-22.	-22.	-29.
30000.	118.	-27.	-33.	-33.	-42.
35000.	111.	-37.	-44.	-44.	-51.
40000.	114.	-48.	-54.	-54.	-64.
45000.	110.	-55.	-61.	-62.	-68.
50000.	104.	-58.	-67.	-67.	-73.
55000.	98.	-62.	-68.	-68.	-75.
60000.	96.	-57.	-64.	-64.	-69.
65000.	94.	-57.	-60.	-60.	-64.
70000.	91.	-54.	-57.	-57.	-60.
75000.	88.	-51.	-54.	-54.	-57.
80000.	78.	-47.	-51.	-51.	-55.
85000.	73.	-44.	-48.	-48.	-51.
90000.	65.	-41.	-45.	-45.	-50.
95000.	58.	-39.	-43.	-43.	-48.
100000.	53.	-36.	-40.	-40.	-45.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES ($^{\circ}$ CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JULY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	149.	30.	22.	14.	
8000.	148.	24.	18.	11.	
10000.	150.	19.	13.	7.	
12000.	150.	13.	9.	5.	
14000.	150.	8.	4.	-1.	
15000.	141.	5.	2.	-3.	
16000.	149.	3.	0.	-5.	
18000.	146.	-1.	-4.	-9.	
20000.	146.	-5.	-8.	-12.	
25000.	139.	-14.	-17.	-21.	
30000.	145.	-23.	-28.	-32.	
35000.	132.	-35.	-40.	-45.	
40000.	137.	-48.	-52.	-56.	
45000.	121.	-60.	-63.	-67.	
50000.	117.	-65.	-71.	-74.	
55000.	103.	-67.	-71.	-77.	
60000.	102.	-61.	-66.	-70.	
65000.	90.	-56.	-61.	-65.	
70000.	89.	-53.	-56.	-60.	
75000.	79.	-50.	-54.	-57.	
80000.	81.	-48.	-51.	-55.	
85000.	70.	-44.	-49.	-54.	
90000.	69.	-41.	-46.	-52.	
95000.	57.	-40.	-44.	-50.	
100000.	57.	-36.	-41.	-47.	

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (° CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 "JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

AUGUST

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	157.	30.	22.	21.	13.
8000.	157.	24.	17.	17.	10.
10000.	157.	18.	13.	12.	5.
12000.	157.	13.	8.	8.	2.
14000.	157.	8.	3.	3.	-1.
15000.	151.	6.	1.	1.	-3.
16000.	156.	3.	-1.	-1.	-4.
18000.	156.	-2.	-5.	-5.	-9.
20000.	156.	-5.	-9.	-9.	-12.
25000.	149.	-13.	-18.	-18.	-22.
30000.	152.	-25.	-29.	-29.	-34.
35000.	144.	-36.	-41.	-41.	-46.
40000.	145.	-49.	-52.	-52.	-55.
45000.	134.	-55.	-62.	-62.	-66.
50000.	132.	-62.	-69.	-69.	-74.
55000.	119.	-62.	-70.	-69.	-76.
60000.	110.	-59.	-64.	-64.	-68.
65000.	96.	-57.	-60.	-60.	-65.
70000.	93.	-53.	-57.	-57.	-60.
75000.	85.	-51.	-54.	-54.	-58.
80000.	80.	-47.	-51.	-51.	-56.
85000.	69.	-46.	-49.	-49.	-52.
90000.	63.	-42.	-46.	-46.	-51.
95000.	60.	-39.	-44.	-44.	-49.
100000.	55.	-37.	-41.	-41.	-48.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES ($^{\circ}$ Celsius)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

SEPTEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	122.	25.	18.	19.	10.
8000.	123.	19.	14.	14.	6.
10000.	123.	14.	10.	10.	1.
12000.	121.	10.	5.	5.	-4.
14000.	121.	5.	1.	1.	-7.
15000.	117.	3.	-1.	-1.	-9.
16000.	121.	2.	-3.	-3.	-11.
18000.	120.	-1.	-6.	-6.	-16.
20000.	122.	-5.	-10.	-9.	-21.
25000.	116.	-15.	-20.	-20.	-34.
30000.	120.	-25.	-32.	-31.	-44.
35000.	115.	-34.	-43.	-42.	-49.
40000.	114.	-46.	-53.	-53.	-61.
45000.	106.	-54.	-62.	-62.	-66.
50000.	105.	-59.	-69.	-69.	-74.
55000.	92.	-59.	-70.	-70.	-76.
60000.	83.	-58.	-65.	-65.	-71.
65000.	76.	-55.	-61.	-61.	-66.
70000.	73.	-53.	-57.	-57.	-63.
75000.	73.	-49.	-55.	-55.	-60.
80000.	71.	-47.	-52.	-52.	-57.
85000.	70.	-41.	-49.	-49.	-54.
90000.	66.	-39.	-47.	-47.	-51.
95000.	62.	-41.	-45.	-45.	-50.
100000.	55.	-38.	-43.	-42.	-47.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES ($^{\circ}$ CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

OCTOBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	144.	23.	14.	14.	3.
8000.	144.	18.	10.	11.	-2.
10000.	145.	14.	6.	7.	-9.
12000.	145.	9.	3.	3.	-12.
14000.	142.	5.	-1.	-1.	-18.
15000.	139.	3.	-3.	-3.	-18.
16000.	142.	1.	-5.	-5.	-18.
18000.	141.	-4.	-9.	-9.	-20.
20000.	141.	-7.	-13.	-13.	-26.
25000.	137.	-10.	-24.	-25.	-31.
30000.	138.	-20.	-36.	-37.	-42.
35000.	133.	-40.	-47.	-47.	-55.
40000.	132.	-50.	-56.	-56.	-64.
45000.	117.	-57.	-63.	-62.	-72.
50000.	108.	-60.	-67.	-67.	-74.
55000.	94.	-60.	-69.	-69.	-75.
60000.	89.	-61.	-66.	-67.	-71.
65000.	82.	-56.	-62.	-62.	-67.
70000.	80.	-54.	-59.	-59.	-63.
75000.	75.	-51.	-55.	-55.	-59.
80000.	71.	-49.	-53.	-53.	-58.
85000.	57.	-46.	-50.	-50.	-54.
90000.	52.	-44.	-48.	-48.	-55.
95000.	46.	-44.	-47.	-47.	-53.
100000.	33.	-43.	-46.	-46.	-52.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (°CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

NOVEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	159.	18°	10°	11°	-1°
8000.	160.	18°	7°	7°	-3°
10000.	159.	10°	4°	4°	-8°
12000.	159.	8°	0°	0°	-12°
14000.	160.	3°	-3°	-3°	-16°
15000.	157.	1°	-5°	-4°	-18°
16000.	157.	-1°	-7°	-6°	-20°
18000.	158.	-4°	-11°	-11°	-24°
20000.	158.	-8°	-15°	-16°	-28°
25000.	156.	-19°	-26°	-26°	-41°
30000.	154.	-31°	-38°	-37°	-45°
35000.	138.	-40°	-49°	-49°	-55°
40000.	126.	-46°	-58°	-59°	-67°
45000.	111.	-54°	-64°	-64°	-72°
50000.	101.	-57°	-67°	-67°	-76°
55000.	86.	-62°	-68°	-68°	-78°
60000.	78.	-61°	-67°	-67°	-72°
65000.	74.	-57°	-64°	-64°	-69°
70000.	62.	-56°	-61°	-61°	-65°
75000.	54°	-52°	-58°	-58°	-62°
80000.	50°	-50°	-55°	-56°	-60°
85000.	44°	-47°	-53°	-52°	-59°
90000.	41°	-46°	-51°	-50°	-56°
95000.	41°	-44°	-49°	-49°	-54°
100000.	34°	-41°	-46°	-46°	-53°

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (° CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

DECEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	148.	15.	6.	6.	-5.
8000.	149.	9.	2.	3.	-10.
10000.	149.	7.	-1.	-0.	-16.
12000.	149.	6.	-4.	-4.	-19.
14000.	149.	2.	-7.	-7.	-23.
15000.	149.	-0.	-9.	-9.	-26.
16000.	148.	-3.	-11.	-10.	-22.
18000.	147.	-7.	-15.	-14.	-25.
20000.	146.	-11.	-19.	-19.	-30.
25000.	138.	-2.	-31.	-31.	-42.
30000.	134.	-34.	-42.	-42.	-49.
35000.	126.	-41.	-52.	-52.	-59.
40000.	119.	-49.	-58.	-58.	-68.
45000.	107.	-52.	-62.	-62.	-73.
50000.	92.	-57.	-65.	-64.	-75.
55000.	81.	-58.	-66.	-66.	-76.
60000.	73.	-58.	-66.	-66.	-71.
65000.	65.	-56.	-64.	-64.	-68.
70000.	63.	-55.	-62.	-62.	-66.
75000.	61.	-52.	-60.	-60.	-64.
80000.	57.	-51.	-56.	-56.	-62.
85000.	53.	-52.	-56.	-56.	-60.
90000.	52.	-49.	-54.	-54.	-59.
95000.	42.	-47.	-51.	-51.	-58.
100000.	37.	-43.	-49.	-49.	-57.

**RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)**
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

JANUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	TEMPERATURE °CELSIUS										
		< -30	-30 < -25	-25 < -20	-20 < -15	-15 < -10	-10 < -5	-5 < 0	0 < 5	5 < 10	10 < 15	15 < 20
5000.	116.	0.	0.	0.	0.	1.	22.	36.	30.	10.	0.	0.
8000.	116.	0.	0.	0.	0.	15.	28.	34.	22.	0.	0.	0.
10000.	117.	0.	0.	0.	0.	9.	16.	36.	3.	0.	0.	0.
12000.	116.	0.	0.	0.	6.	14.	23.	45.	12.	0.	0.	0.
14000.	116.	0.	0.	2.	13.	19.	47.	19.	0.	0.	0.	0.
15000.	115.	0.	0.	3.	17.	25.	49.	5.	0.	0.	0.	0.
< -55	z -55	z -50	z -45	z -40	z -35	z -30	z -25	z -20	z -15	z -10	< -5	> 0
16000.	116.	0.	0.	0.	0.	0.	1.	10.	19.	36.	32.	2.
18000.	116.	0.	0.	0.	0.	1.	9.	19.	31.	38.	3.	0.
20000.	115.	0.	0.	0.	0.	1.	5.	20.	31.	37.	5.	0.
25000.	115.	0.	0.	1.	10.	27.	37.	24.	2.	0.	0.	0.
30000.	110.	0.	9.	35.	45.	10.	0.	0.	0.	0.	0.	0.

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	≥ -80	≥ -75	≥ -70	≥ -65	≥ -60	≥ -55	≥ -50	≥ -45	≥ -40	≥ -35	≥ -30
35000.	103.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	102.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45000.	95.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	84.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	69.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60000.	56.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	50.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	44.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	38.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	37.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	35.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	31.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	23.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	15.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

**RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)**
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

FEBRUARY

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

MARCH

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	TEMPERATURE °CELSIUS						≥ 20 ≥ 15 ≥ 10 ≥ 5 < 0	≥ 25 ≥ 30 < 20 < 15	≥ 20 ≥ 25 < 20	≥ 25 ≥ 30	
		≥ -25	≥ -20	≥ -15	≥ -10	≥ -5	> 0					
6000.	139.	0.	0.	0.	0.	2.	19.	47.	29.	4.	0.	
8000.	137.	0.	0.	0.	0.	1.	15.	53.	28.	2.	0.	
10000.	137.	0.	0.	0.	0.	2.	12.	51.	31.	3.	0.	
12000.	137.	0.	0.	0.	1.	9.	50.	39.	1.	0.	0.	
14000.	137.	0.	0.	0.	7.	42.	5.	0.	0.	0.	0.	
15000.	136.	0.	0.	0.	1.	12.	55.	31.	1.	0.	0.	
<-55	>-55	≥ -50	≥ -45	≥ -40	≥ -35	< -30	< -25	< -20	< -15	< -10	< -5	< 0
	<-50	<-45	<-40	<-35	<-30	<-25	<-20	<-15	<-10	< -5	< 0	< 0
16000.	136.	0.	0.	0.	0.	0.	0.	0.	3.	32.	55.	10.
18000.	137.	0.	0.	0.	0.	0.	0.	3.	21.	61.	15.	0.
20000.	137.	0.	0.	0.	0.	0.	0.	3.	10.	68.	19.	0.
25000.	136.	0.	0.	0.	1.	1.	34.	55.	8.	0.	0.	0.
30000.	135.	0.	0.	4.	53.	42.	1.	0.	0.	0.	0.	0.

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	> -25																				
		> -30	< -30	> -35	< -35	> -40	< -40	> -45	< -45	> -50	< -50	> -55	< -55	> -60	< -60	> -65	< -65	> -70	< -70	> -75	< -75	> -80
35000.	130.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	124.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45000.	115.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	110.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	103.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60000.	93.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	84.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	82.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	76.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	75.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	70.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	64.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	57.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	41.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

**RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967**

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GEOMETRIC ALTITUDE MSL FEET	TOTAL	≥ -25									
		≥ -30	< -30	≥ -35	< -35	≥ -40	< -40	≥ -45	< -45	≥ -50	< -50
3500.	114.	0.	0.	0.	0.	2.	28.	61.	9.	0.	0.
4000.	115.	0.	0.	0.	0.	27.	59.	12.	2.	0.	0.
4500.	103.	0.	0.	0.	0.	16.	50.	30.	1.	0.	0.
5000.	100.	0.	0.	0.	0.	13.	75.	11.	0.	0.	0.
5500.	98.	0.	0.	0.	0.	3.	41.	30.	6.	0.	0.
6000.	94.	0.	0.	0.	0.	2.	47.	50.	1.	0.	0.
6500.	91.	0.	0.	0.	0.	0.	10.	51.	40.	0.	0.
7000.	90.	0.	0.	0.	0.	0.	10.	72.	18.	0.	0.
7500.	81.	0.	0.	0.	0.	0.	0.	30.	65.	5.	0.
8000.	78.	0.	0.	0.	0.	0.	0.	0.	3.	73.	0.
8500.	73.	0.	0.	0.	0.	0.	0.	0.	0.	22.	75.
9000.	71.	0.	0.	0.	0.	0.	0.	0.	1.	63.	35.
9500.	63.	0.	0.	0.	0.	0.	0.	0.	0.	16.	75.
10000.	50.	0.	0.	0.	0.	0.	0.	0.	0.	2.	42.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JALS)
PERIOD OF RECORD 1962-1967

JUNE

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS.	TEMPERATURE °CELSIUS																			
		≥ -15	< -10	≥ -5	< 5	≥ 0	< 5	≥ 10	< 15	≥ 15	< 20	≥ 20	< 25	≥ 25	< 30	≥ 30	< 35	≥ 35	< 40	≥ 40	
6000.	128.	0.	0.	0.	0.	1.	1.	3.	33.	45.	18.	1.	0.	0.	0.	0.	0.	0.	0.	0.	
8000.	126.	0.	0.	0.	0.	1.	1.	26.	54.	18.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
10000.	126.	0.	0.	0.	0.	2.	2.	24.	56.	18.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
12000.	126.	0.	0.	0.	0.	2.	2.	20.	64.	14.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
14000.	125.	0.	0.	0.	0.	14.	76.	10.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
15000.	122.	0.	0.	0.	0.	3.	49.	48.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
< -45	≥ -40	≥ -45	< -40	≥ -35	< -30	≥ -30	< -25	≥ -25	< -20	≥ -20	< -15	≥ -15	< -10	≥ -10	< -5	≥ -5	< 0	≥ 0	< 5	≥ 5	> 10
16000.	124.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	10.	77.	12.	0.	0.	0.	0.	0.
18000.	123.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.	71.	22.	0.	0.	0.	0.	0.
20000.	123.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	59.	37.	0.	0.	0.	0.	0.
25000.	122.	0.	0.	0.	0.	0.	0.	0.	0.	0.	12.	57.	30.	2.	0.	0.	0.	0.	0.	0.	0.
30000.	118.	0.	1.	28.	56.	15.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	≥ -80	-75	-70	-65	-60	≥ -55	-50	-45	≥ -40	-35	≥ -30	-25
35000.	111.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	114.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45000.	110.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	104.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	98.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60000.	96.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	94.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	91.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	88.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	78.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	73.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	65.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	58.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	53.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

**RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967**

JULY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	TEMPERATURE °CELSIUS																					
		≥ -10	< -5	≥ -5	≥ 0	< 5	≥ 5	< 10	≥ 10	< 15	≥ 15	< 20	≥ 20	< 25	≥ 25	< 30	≥ 30	< 35	≥ 35	< 40	≥ 40	< 45	≥ 45
6000.	149.	0.	0.	0.	0.	0.	0.	1.	21.	60.	19.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	148.	0.	0.	0.	0.	0.	0.	12.	71.	17.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	150.	0.	0.	0.	0.	0.	0.	5.	77.	18.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12000.	150.	0.	0.	0.	0.	0.	2.	77.	21.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14000.	150.	0.	0.	0.	1.	69.	29.	0.	6.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15000.	141.	0.	0.	0.	0.	0.	0.	93.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
< -45	≥ -45	≥ -40	< -35	≥ -35	≥ -30	≥ -25	< -20	≥ -20	< -15	≥ -15	< -10	< -5	< 0	< 5	< 10	< 15	< 20	< 25	< 30	< 35	< 40	< 45	< 45
16000.	149.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	25.	50.	50.	0.	0.	0.	0.	0.
18000.	146.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.	91.	75.	0.	0.	0.	0.	0.	0.
20000.	146.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	91.	6.	0.	0.	0.	0.	0.	0.
25000.	139.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	13.	81.	0.	0.	0.	0.	0.	0.	0.
30000.	145.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT),
JALLEN SITE (JAL),
PERIOD OF RECORD 1962-1967

AUGUST

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS.	TEMPERATURE °CELSIUS									
		≥ -10	≤ -5	≥ 0	≤ 5	≥ 10	≤ 15	≥ 20	≤ 25	≥ 30	≤ 35
6000.	157.	0.	0.	0.	0.	0.	2.	37.	41.	19.	1.
8000.	157.	0.	0.	0.	0.	1.	25.	57.	17.	0.	0.
10000.	157.	0.	0.	0.	0.	11.	73.	17.	0.	0.	0.
12000.	157.	0.	0.	0.	4.	78.	18.	0.	0.	0.	0.
14000.	157.	0.	0.	1.	81.	18.	0.	0.	0.	0.	0.
15000.	151.	0.	0.	23.	75.	1.	0.	0.	0.	0.	0.
< -45	2	-45	2	-40	2	-35	2	-30	2	-25	2
< -40	2	-40	2	-35	2	-30	2	-25	2	-20	2
16000.	156.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18000.	156.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20000.	156.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25000.	149.	0.	0.	0.	0.	0.	0.	11.	84.	5.	0.
30000.	152.	0.	0.	0.	0.	0.	0.	28.	71.	1.	0.

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	> -25									
		> -30	> -35	> -40	> -45	> -50	> -55	> -60	> -65	> -70	> -75
35000.	144.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	145.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45000.	134.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	132.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	119.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60000.	110.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	96.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	93.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	85.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	80.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	69.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	63.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	60.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	55.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

**RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967**

SEPTEMBER

GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE °CELSIUS												
	< -15	≥ -15	≤ -10	≤ -5	≤ 0	≥ 5	≥ 10	≥ 15	≥ 20	≥ 25	≥ 30	≥ 35	≥ 40
TOTAL OBS	< -15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6000.	122.	0.	0.	0.	0.	0.	20.	42.	36.	2.	0.	0.	0.
8000.	123.	0.	0.	0.	0.	0.	7.	50.	43.	0.	0.	0.	0.
10000.	123.	0.	0.	0.	0.	0.	2.	50.	49.	0.	0.	0.	0.
12000.	121.	0.	0.	0.	0.	0.	2.	40.	59.	0.	0.	0.	0.
14000.	121.	0.	0.	0.	0.	0.	22.	76.	0.	0.	0.	0.	0.
15000.	117.	0.	0.	0.	0.	0.	2.	61.	38.	0.	0.	0.	0.
< -45	≥ -45	≤ -40	≤ -35	≤ -30	≤ -25	≤ -20	≤ -15	≤ -10	≤ -5	≤ 0	< 5	≥ 5	≥ 10
16000.	121.	0.	0.	0.	0.	0.	0.	1.	1.	11.	83.	5.	0.
18000.	120.	0.	0.	0.	0.	0.	1.	1.	1.	74.	24.	0.	0.
20000.	122.	0.	0.	0.	0.	0.	1.	1.	1.	33.	64.	2.	0.
25000.	116.	0.	0.	0.	0.	0.	3.	42.	54.	0.	0.	0.	0.
30000.	120.	0.	0.	0.	0.	0.	7.	63.	29.	1.	0.	0.	0.

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	>-25							
		>-30	>-35	>-40	>-45	>-50	>-55	>-60	>-65
35000.	115.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	114.	0.	0.	0.	0.	0.	0.	0.	0.
45000.	106.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	105.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	92.	0.	0.	0.	0.	0.	0.	0.	0.
60000.	83.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	76.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	73.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	73.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	71.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	70.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	66.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	62.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	55.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

OCTOBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL UBS	TEMPERATURE ° CELSIUS									
		≥ -20	< -15	≥ -10	< -5	≥ 0	< 5	≥ 5	< 10	≥ 10	< 20
6000.	144.	0.	0.	0.	0.	1.	5.	35.	48.	35.	0.
8000.	144.	0.	0.	0.	0.	1.	5.	35.	49.	10.	0.
10000.	145.	0.	0.	0.	0.	1.	2.	25.	59.	12.	0.
12000.	145.	0.	0.	0.	0.	1.	12.	67.	19.	0.	0.
14000.	142.	0.	0.	0.	0.	5.	58.	36.	0.	0.	0.
15000.	139.	0.	0.	0.	0.	1.	15.	68.	15.	0.	0.
16000.	142.	0.	0.	0.	0.	0.	0.	1.	1.	42.	53.
18000.	161.	0.	0.	0.	0.	0.	0.	1.	26.	65.	9.
20000.	141.	0.	0.	0.	0.	0.	0.	1.	14.	70.	15.
25000.	137.	0.	0.	0.	0.	0.	1.	46.	48.	0.	0.
30000.	138.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.

GEOMETRIC ALTITUDE MSL FEET		≥ -75	≥ -70	≥ -65	≥ -60	≥ -55	≥ -50	≥ -45	≥ -40	≥ -35	≥ -30	≥ -25
TOTAL	133	0.	0.	0.	0.	0.	0.	23.	52.	2.	0.	0.
OBS	132	0.	0.	0.	0.	0.	0.	36.	1.	0.	0.	0.
35000.	117	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	108	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45000.	94	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	89	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	82	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60000.	80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	75	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	71	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	53	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	46	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	33	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95000.												
100000.												

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

NOVEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	TEMPERATURE °CELSIUS									
		≥ -25	≤ -20	≥ -15	≤ -10	≥ -5	≤ 0	≥ 5	≤ 10	≥ 15	≤ 20
6000.	159.	0.	0.	0.	0.	1.	14.	27.	50.	9.	0.
8000.	160.	0.	0.	0.	0.	6.	22.	54.	17.	1.	0.
10000.	159.	0.	0.	0.	0.	3.	12.	52.	33.	1.	0.
12000.	159.	0.	0.	0.	0.	2.	3.	42.	49.	4.	0.
14000.	160.	0.	0.	0.	0.	1.	2.	27.	57.	13.	0.
15000.	157.	0.	0.	1.	6.	36.	52.	5.	0.	0.	0.
< -55	≥ -50	≥ -50	≤ -45	≥ -40	≤ -35	≥ -30	≤ -25	≥ -20	≤ -15	≥ -10	≤ -5
16000.	157.	0.	0.	0.	0.	0.	0.	1.	1.	18.	54.
18000.	158.	0.	0.	0.	0.	0.	0.	5.	5.	58.	34.
20000.	158.	0.	0.	0.	0.	0.	0.	1.	3.	55.	38.
25000.	156.	0.	0.	0.	1.	0.	12.	49.	34.	4.	0.
≥ 20000.	154.	0.	0.	1.	1.	27.	53.	19.	0.	0.	0.

GEOMETRIC ALTITUDE HSL FEET		>-30									
TOTAL	OBS	>-80	>-75	>-70	>-65	>-60	>-55	>-50	>-45	>-40	>-35
35000.	138.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	126.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45000.	111.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	101.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55000.	86.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60000.	78.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65000.	74.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70000.	62.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75000.	54.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80000.	50.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85000.	44.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90000.	41.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95000.	41.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100000.	34.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

DECEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBS	TEMPERATURE °CELSIUS																				
		> -30	< -25	> -20	< -15	> -10	< -5	> 0	< 5	> 5	< 10	> 10	< 15	> 15	< 20	> 20	< 25	> 25	< 30	> 30	< 35	> 35
6000.	148.	0.	0.	0.	0.	0.	0.	10.	31.	45.	14.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	149.	0.	0.	0.	0.	0.	0.	7.	19.	54.	19.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	149.	0.	0.	0.	1.	3.	15.	35.	41.	6.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12000.	149.	0.	0.	0.	1.	9.	30.	37.	22.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14000.	149.	0.	0.	1.	3.	22.	37.	32.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15000.	149.	0.	0.	1.	12.	27.	40.	21.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
< -60	> -60	> -55	< -50	> -50	< -45	> -45	< -40	> -40	< -35	> -35	< -30	> -30	< -25	> -25	< -20	> -20	< -15	> -15	< -10	> -10	< -5	> -5
16000.	148.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18000.	147.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
20000.	146.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25000.	138.	0.	0.	0.	0.	0.	0.	1.	12.	45.	37.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30000.	134.	0.	0.	0.	0.	0.	0.	20.	52.	26.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (°CELSIUS)
AT SELECTED LEVELS BY SEASONS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	WINTER			MINIMUM
		MAXIMUM	MEAN	MEDIAN	
6000.	376.	10.	5.	5.	-6.
8000.	377.	12.	1.	2.	-10.
10000.	378.	7.	-2.	-1.	-16.
12000.	377.	6.	-5.	-4.	-19.
14000.	377.	2.	-9.	-8.	-23.
15000.	375.	-0.	-10.	-10.	-26.
16000.	376.	-2.	-12.	-12.	-26.
18000.	374.	-7.	-17.	-16.	-31.
20000.	372.	-11.	-21.	-21.	-36.
25000.	360.	-24.	-33.	-32.	-47.
30000.	349.	-34.	-44.	-44.	-53.
35000.	329.	-39.	-53.	-53.	-62.
40000.	314.	-45.	-57.	-57.	-68.
45000.	292.	-51.	-60.	-60.	-73.
50000.	250.	-52.	-64.	-64.	-75.
55000.	214.	-55.	-65.	-65.	-76.
60000.	186.	-53.	-65.	-65.	-74.
65000.	170.	-56.	-63.	-64.	-70.
70000.	161.	-54.	-61.	-61.	-69.
75000.	149.	-51.	-59.	-59.	-64.
80000.	141.	-45.	-57.	-57.	-62.
85000.	132.	-48.	-55.	-55.	-61.
90000.	122.	-45.	-53.	-53.	-60.
95000.	95.	-42.	-50.	-50.	-58.
100000.	76.	-42.	-48.	-48.	-57.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES ($^{\circ}$ CELSIUS)
 AT SELECTED LEVELS BY SEASONS
 JAALEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SPRING		SUMMER		AUTUMN		WINTER	
		MAXIMUM	MEAN	MAXIMUM	MEDIAN	MINIMUM	MEAN	MAXIMUM	MINIMUM
6000.	428.	27.	13.	-9.	-15.				
8000.	425.	21.	8.	-9.	-15.				
10000.	423.	15.	3.	-4.	-18.				
12000.	421.	10.	-1.	-1.	-24.				
14000.	421.	6.	-5.	-5.	-28.				
15000.	414.	3.	-7.	-7.	-29.				
16000.	418.	1.	-9.	-9.	-29.				
18000.	417.	-4.	-14.	-13.	-31.				
20000.	415.	-8.	-18.	-18.	-36.				
25000.	407.	-20.	-29.	-29.	-45.				
30000.	410.	-30.	-41.	-41.	-53.				
35000.	391.	-42.	-52.	-52.	-61.				
40000.	384.	-43.	-58.	-59.	-69.				
45000.	350.	-50.	-60.	-60.	-70.				
50000.	339.	-51.	-63.	-63.	-75.				
55000.	313.	-57.	-64.	-64.	-74.				
60000.	289.	-56.	-64.	-64.	-71.				
65000.	263.	-55.	-61.	-61.	-68.				
70000.	257.	-50.	-58.	-58.	-64.				
75000.	228.	-43.	-55.	-55.	-65.				
80000.	211.	-47.	-52.	-52.	-58.				
85000.	191.	-44.	-50.	-50.	-56.				
90000.	179.	-43.	-47.	-47.	-54.				
95000.	160.	-36.	-44.	-44.	-52.				
100000.	121.	-36.	-42.	-42.	-52.				

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (° CELSIUS)
 AT SELECTED LEVELS BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SUMMER			MINIMUM
		MAXIMUM	MEAN	MEDIAN	
6000.	434.	31.	22.	22.	9.
8000.	431.	24.	17.	17.	5.
10000.	433.	19.	13.	13.	2.
12000.	433.	13.	8.	8.	-1.
14000.	432.	6.	3.	3.	+5.
15000.	414.	6.	1.	1.	-7.
16000.	429.	3.	-1.	-1.	-9.
18000.	425.	-1.	-5.	-5.	+12.
20000.	425.	-5.	-9.	-9.	-18.
25000.	410.	-13.	-19.	-18.	-29.
30000.	415.	-23.	-30.	-29.	-42.
35000.	387.	-35.	-41.	-41.	-51.
40000.	396.	-48.	-53.	-52.	-64.
45000.	365.	-55.	-62.	-62.	-66.
50000.	353.	-58.	-69.	-69.	-74.
55000.	320.	-62.	-70.	-70.	-77.
60000.	308.	-57.	-65.	-65.	-70.
65000.	280.	-56.	-60.	-60.	-65.
70000.	273.	-53.	-57.	-57.	-60.
75000.	252.	-50.	-54.	-54.	-58.
80000.	239.	-47.	-51.	-51.	-56.
85000.	212.	-44.	-49.	-48.	-54.
90000.	197.	-41.	-46.	-46.	-52.
95000.	175.	-39.	-43.	-43.	-50.
100000.	165.	-36.	-41.	-40.	-48.

MEAN, MEDIAN AND EXTREME UPPER AIR TEMPERATURES (° CELSIUS)
 AT SELECTED LEVELS BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	FALL			MINIMUM
		MAXIMUM	MEAN	MEDIAN	
6000.	425.	25.	14.	14.	-1.
8000.	427.	19.	10.	10.	-3.
10000.	427.	14.	6.	7.	-9.
12000.	425.	10.	2.	3.	-12.
14000.	423.	5.	-1.	-1.	-18.
15000.	413.	3.	-3.	-3.	-18.
16000.	420.	2.	-5.	-5.	-20.
18000.	419.	-1.	-9.	-9.	-24.
20000.	421.	-5.	-13.	-13.	-28.
25000.	409.	-15.	-24.	-24.	-41.
30000.	412.	-25.	-35.	-36.	-45.
35000.	386.	-34.	-46.	-47.	-56.
37200.	372.	-46.	-56.	-56.	-67.
40000.	334.	-54.	-63.	-63.	-72.
45000.	314.	-57.	-68.	-68.	-76.
50000.	272.	-59.	-69.	-69.	-78.
55000.	250.	-58.	-66.	-66.	-72.
60000.	232.	-55.	-62.	-62.	-69.
65000.	215.	-53.	-59.	-59.	-65.
70000.	202.	-49.	-56.	-56.	-62.
75000.	192.	-47.	-53.	-53.	-60.
80000.	171.	-41.	-50.	-50.	-59.
85000.	160.	-39.	-48.	-48.	-56.
90000.	149.	-41.	-47.	-46.	-54.
95000.	122.	-38.	-45.	-44.	-53.
100000.					

SECTION III

UPPER AIR PRESSURE DATA

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1. Mean and Extreme Upper Air Pressures
(Millibars) at Selected Levels ----- 100

B. By Seasons

1. Mean and Extreme Upper Air Pressures
(Millibars) at Selected Levels ----- 112

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

JANUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
6000.	116.	829.	816.	805.
8000.	116.	768.	757.	747.
10000.	117.	713.	702.	690.
12000.	116.	661.	649.	637.
14000.	116.	612.	601.	588.
15000.	115.	589.	577.	564.
16000.	116.	567.	555.	541.
18000.	116.	524.	512.	497.
20000.	115.	483.	472.	456.
25000.	115.	394.	382.	364.
30000.	110.	318.	306.	290.
35000.	103.	254.	243.	231.
40000.	102.	200.	191.	183.
45000.	95.	155.	150.	144.
50000.	84.	121.	118.	114.
55000.	69.	95.	92.	89.
60000.	56.	74.	72.	70.
65000.	50.	58.	56.	55.
70000.	44.	45.5	44.0	42.5
75000.	38.	36.0	34.5	33.5
80000.	37.	28.5	27.0	26.5
85000.	35.	22.5	21.5	20.5
90000.	31.	17.9	16.9	16.4
95000.	23.	14.2	13.4	13.0
100000.	15.	11.3	10.7	10.4

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

FEBRUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
6000.	112.	827.	817.	805.
8000.	112.	767.	758.	746.
10000.	112.	711.	702.	690.
12000.	112.	659.	650.	637.
14000.	112.	611.	601.	586.
15000.	111.	588.	577.	563.
16000.	112.	566.	555.	540.
18000.	111.	523.	512.	496.
20000.	111.	484.	471.	455.
25000.	107.	395.	382.	363.
30000.	105.	319.	306.	288.
35000.	100.	254.	242.	229.
40000.	93.	203.	191.	182.
45000.	90.	161.	150.	144.
50000.	74.	127.	118.	114.
55000.	64.	97.	92.	89.
60000.	57.	75.	72.	70.
65000.	55.	59.	56.	54.
70000.	54.	46.0	43.5	42.5
75000.	50.	36.0	34.5	33.0
80000.	47.	28.5	27.0	26.0
85000.	44.	22.5	21.5	20.5
90000.	39.	17.9	16.9	16.4
95000.	30.	14.2	13.4	13.0
100000.	24.	11.3	10.7	10.4

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MARCH		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	823.	816.	805.		
8000.	161.	765.	747.		
10000.	160.	711.	702.	691.	
12000.	159.	660.	651.	636.	
14000.	159.	612.	602.	585.	
15000.	156.	589.	579.	561.	
16000.	160.	566.	556.	537.	
18000.	159.	524.	513.	494.	
20000.	157.	484.	473.	454.	
25000.	152.	394.	383.	364.	
30000.	154.	318.	307.	289.	
35000.	147.	253.	244.	230.	
40000.	145.	200.	192.	182.	
45000.	132.	156.	151.	145.	
50000.	129.	122.	118.	114.	
55000.	112.	95.	92.	89.	
60000.	102.	75.	72.	69.	
65000.	88.	59.	56.	54.	
70000.	85.	46.0	44.0	43.0	
75000.	69.	36.5	34.5	33.5	
80000.	58.	29.0	27.5	26.5	
85000.	48.	23.0	21.5	21.0	
90000.	44.	18.1	17.2	16.7	
95000.	40.	14.3	13.6	13.2	
100000.	30.	11.4	10.9	10.5	

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	APRIL		
		MAXIMUM	MEAN	MINIMUM
6000.	139.	827.	816.	803.
8000.	137.	768.	759.	745.
10000.	137.	713.	704.	692.
12000.	137.	661.	653.	641.
14000.	137.	613.	605.	593.
15000.	136.	590.	581.	569.
16000.	136.	567.	559.	547.
18000.	137.	525.	516.	505.
20000.	137.	485.	476.	465.
25000.	136.	396.	387.	374.
30000.	135.	320.	311.	299.
35000.	130.	256.	248.	238.
40000.	122.	200.	195.	187.
45000.	115.	156.	153.	147.
50000.	110.	123.	120.	115.
55000.	103.	97.	94.	90.
60000.	93.	75.	73.	71.
65000.	84.	59.	57.	55.
70000.	82.	46.0	45.0	43.0
75000.	78.	36.5	35.5	34.0
80000.	75.	29.0	28.0	27.0
85000.	70.	23.0	22.0	21.5
90000.	64.	18.3	17.6	17.0
95000.	57.	14.5	14.0	13.5
100000.	41.	11.6	11.2	10.8

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOGRAPHIC ALTITUDE HSL FEET	OBSERVATIONS	MAY		MINIMUM	
		TOTAL	MAXIMUM	MEAN	MEAN
6000.	128.	827.	818.	808.	808.
8000.	127.	769.	761.	751.	751.
10000.	126.	715.	707.	697.	697.
12000.	125.	664.	656.	646.	646.
14000.	125.	616.	608.	597.	597.
15000.	122.	591.	585.	574.	574.
16000.	122.	571.	563.	551.	551.
18000.	121.	527.	521.	508.	508.
20000.	121.	487.	481.	467.	467.
25000.	119.	398.	392.	377.	377.
30000.	121.	323.	316.	304.	304.
35000.	114.	259.	252.	242.	242.
40000.	115.	205.	199.	191.	191.
45000.	103.	161.	156.	151.	151.
50000.	100.	125.	122.	118.	118.
55000.	98.	98.	95.	93.	93.
60000.	94.	76.	74.	73.	73.
65000.	91.	60.	58.	57.	57.
70000.	90.	47.0	45.5	44.5	44.5
75000.	81.	37.0	36.0	35.0	35.0
80000.	78.	29.5	28.5	27.5	27.5
85000.	73.	23.5	22.5	22.0	22.0
90000.	71.	18.6	18.0	17.5	17.5
95000.	63.	14.9	14.4	13.9	13.9
100000.	50.	11.8	11.5	11.1	11.1

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	JUNE	
					128.	825.
6000.					126.	768.
8000.					126.	762.
10000.					126.	709.
12000.					126.	664.
14000.					125.	617.
15000.					122.	595.
16000.					124.	573.
18000.					123.	531.
20000.					123.	491.
25000.					122.	402.
30000.					118.	327.
35000.					111.	264.
40000.					114.	210.
45000.					110.	165.
50000.					105.	130.
55000.					98.	100.
60000.					96.	78.
65000.					94.	61.
70000.					91.	48.0
75000.					88.	37.5
80000.					78.	30.0
85000.					73.	24.0
90000.					65.	19.0
95000.					58.	15.1
100000.					53.	12.1

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JALI)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JULY		
		MAXIMUM	MEAN	MINIMUM
6000.	149.	826.	821.	816.
8000.	147.	769.	765.	760.
10000.	150.	716.	712.	705.
12000.	150.	666.	662.	656.
14000.	150.	619.	614.	610.
15000.	141.	595.	592.	587.
16000.	149.	574.	570.	565.
18000.	146.	532.	528.	523.
20000.	146.	492.	489.	483.
25000.	139.	404.	400.	395.
30000.	145.	329.	326.	321.
35000.	133.	266.	262.	258.
40000.	137.	212.	209.	204.
45000.	121.	167.	164.	160.
50000.	118.	130.	128.	124.
55000.	104.	101.	99.	96.
60000.	101.	78.	77.	75.
65000.	90.	61.	60.	58.
70000.	89.	48.0	47.0	45.5
75000.	81.	38.0	37.0	36.0
80000.	81.	30.0	29.5	28.5
85000.	72.	24.0	23.5	22.5
90000.	69.	19.0	18.6	17.9
95000.	59.	15.2	14.8	14.2
100000.	57.	12.1	11.8	11.3

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

AUGUST

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
6000.	157.	825.	821.	816.
8000.	157.	770.	735.	760.
10000.	157.	717.	712.	706.
12000.	157.	667.	661.	656.
14000.	157.	620.	614.	608.
15000.	151.	597.	591.	586.
16000.	156.	576.	569.	564.
18000.	156.	534.	527.	522.
20000.	156.	494.	488.	483.
25000.	149.	405.	399.	395.
30000.	152.	329.	324.	320.
35000.	144.	266.	261.	257.
40000.	145.	212.	208.	203.
45000.	134.	167.	163.	160.
50000.	132.	130.	127.	124.
55000.	119.	100.	99.	96.
60000.	110.	79.	77.	75.
65000.	96.	61.	60.	59.
70000.	93.	43.0	47.5	46.0
75000.	85.	38.0	37.5	36.5
80000.	80.	30.5	29.5	28.5
85000.	70.	24.0	23.5	23.0
90000.	64.	19.1	18.6	18.1
95000.	60.	15.3	14.9	14.4
100000.	55.	12.3	11.9	11.4

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

SEPTEMBER

GEOMETRIC ALTITUDE MSL FEET	OBSERVATIONS	TOTAL	MAXIMUM	MEAN	MINIMUM
6000.	121.	926.	820.	811.	756.
8000.	123.	768.	763.	756.	703.
10000.	123.	715.	710.	652.	604.
12000.	124.	664.	659.	589.	559.
14000.	121.	617.	611.	581.	517.
15000.	117.	594.	589.	567.	525.
16000.	121.	572.	567.	525.	485.
18000.	120.	520.	517.	476.	436.
20000.	122.	490.	485.	439.	397.
25000.	116.	402.	397.	366.	309.
30000.	120.	327.	322.	296.	246.
35000.	115.	264.	258.	212.	196.
40000.	114.	212.	205.	161.	155.
45000.	106.	168.	161.	122.	122.
50000.	104.	125.	126.	95.	95.
55000.	91.	100.	98.	74.	74.
60000.	82.	78.	76.	58.	58.
65000.	76.	61.	59.	45.5	45.5
70000.	74.	47.5	46.5	35.5	35.5
75000.	72.	37.5	36.5	28.0	28.0
80000.	71.	29.5	29.0	22.5	22.5
85000.	69.	23.5	23.0	17.6	17.6
90000.	65.	18.8	18.3	14.0	14.0
95000.	62.	15.0	14.6	11.6	11.6
100000.	55.	12.0	11.1		

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JAILEN SITE (JAL)

PERIOD OF RECORD 1962-1967

OCTOBER

GEOMETRIC ALTITUDE HSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
6000.	143.	830.	820.	811.
8000.	144.	770.	763.	754.
10000.	145.	715.	709.	694.
12000.	145.	664.	657.	642.
14000.	142.	615.	610.	594.
15000.	139.	592.	587.	571.
16000.	142.	570.	564.	549.
18000.	141.	527.	522.	507.
20000.	141.	487.	482.	466.
25000.	137.	399.	393.	381.
30000.	137.	324.	318.	306.
35000.	133.	260.	254.	244.
40000.	132.	207.	201.	193.
45000.	117.	163.	158.	154.
50000.	108.	127.	123.	119.
55000.	94.	98.	95.	92.
60000.	89.	76.	74.	72.
65000.	82.	59.	58.	56.
70000.	80.	46.5	45.5	43.5
75000.	75.	36.5	35.5	34.5
80000.	71.	29.0	28.0	27.0
85000.	57.	23.0	22.5	21.5
90000.	53.	18.3	17.8	17.1
95000.	46.	14.6	14.1	13.6
100000.	33.	11.6	11.2	10.8

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

NOVEMBER

GEOMETRIC ALTITUDE MSL FEET	OBSERVATIONS	TOTAL	MAXIMUM	MEAN	MINIMUM
6000.	159.	827.	219.	807.	748.
8000.	160.	769.	761.	693.	641.
10000.	159.	715.	706.	592.	568.
12000.	159.	664.	655.	545.	502.
14000.	160.	616.	607.	462.	429.
15000.	157.	593.	584.	371.	338.
16000.	157.	571.	561.	296.	236.
18000.	158.	529.	519.	251.	198.
20000.	158.	489.	479.	193.	149.
25000.	156.	400.	390.	155.	117.
30000.	154.	324.	314.	120.	91.
35000.	138.	260.	251.	97.	71.
40000.	126.	206.	193.	75.	55.
45000.	111.	161.	155.	57.	44.5
50000.	101.	125.	120.	45.5	43.0
55000.	86.	97.	94.	36.0	34.0
60000.	78.	75.	73.	28.5	26.5
65000.	74.	58.	57.	22.5	21.0
70000.	62.	45.5	44.5	17.7	16.5
75000.	54.	36.0	35.0	14.1	13.1
80000.	50.	28.5	27.5	10.9	10.4
85000.	44.	22.5	21.5		
90000.	41.	17.7	17.2		
95000.	41.	14.1	13.6		
100000.	34.	11.3	10.9		

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	DECEMBER		MEAN MINIMUM
		MAXIMUM	MEAN	
6000.	147.	824.	816.	805.
8000.	148.	765.	757.	747.
10000.	149.	710.	702.	690.
12000.	149.	659.	650.	639.
14000.	149.	611.	602.	590.
15000.	149.	587.	578.	566.
16000.	148.	565.	556.	543.
18000.	147.	523.	513.	501.
20000.	146.	483.	472.	461.
25000.	138.	394.	384.	371.
30000.	134.	318.	308.	295.
35000.	126.	255.	245.	237.
40000.	119.	201.	193.	187.
45000.	107.	158.	152.	147.
50000.	92.	123.	119.	116.
55000.	81.	95.	92.	90.
60000.	73.	73.	72.	71.
65000.	65.	57.	56.	55.
70000.	63.	44.5	44.0	43.0
75000.	61.	35.0	34.5	33.5
80000.	57.	27.5	27.0	26.5
85000.	53.	21.5	21.5	20.5
90000.	52.	17.1	16.8	16.3
95000.	42.	13.6	13.3	12.9
100000.	37.	10.8	10.5	10.2

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	WINTER		MINIMUM
		MAXIMUM	MEAN	
6000.	375.	829.	817.	805.
8000.	376.	768.	757.	746.
10000.	378.	713.	702.	690.
12000.	377.	661.	650.	637.
14000.	377.	612.	601.	586.
15000.	375.	589.	578.	63.
16000.	376.	567.	555.	540.
18000.	374.	524.	512.	496.
20000.	372.	484.	472.	455.
25000.	360.	395.	383.	363.
30000.	349.	319.	307.	288.
35000.	329.	255.	243.	229.
40000.	314.	203.	192.	182.
45000.	292.	161.	151.	144.
50000.	250.	127.	118.	114.
55000.	214.	97.	92.	89.
60000.	186.	75.	72.	70.
65000.	170.	59.	56.	54.
70000.	161.	46.0	44.0	42.5
75000.	149.	36.0	34.5	33.0
80000.	141.	28.5	27.0	26.0
85000.	132.	22.5	21.5	20.5
90000.	122.	17.9	16.9	16.3
95000.	95.	14.2	13.4	12.9
100000.	76.	11.3	10.6	10.2

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

SPRING

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
6000.	428.	827.	817.	803.
8000.	425.	769.	759.	745.
10000.	423.	715.	704.	691.
12000.	421.	664.	653.	636.
14000.	421.	616.	605.	585.
15000.	414.	591.	582.	561.
16000.	418.	571.	559.	537.
18000.	417.	527.	516.	494.
20000.	415.	487.	476.	454.
25000.	407.	398.	387.	364.
30000.	410.	323.	311.	289.
35000.	391.	259.	248.	230.
40000.	382.	205.	195.	182.
45000.	350.	161.	153.	145.
50000.	339.	125.	120.	114.
55000.	313.	98.	94.	89.
60000.	289.	76.	73.	69.
65000.	263.	60.	57.	54.
70000.	257.	47.0	45.0	43.0
75000.	228.	37.0	35.5	33.5
80000.	211.	29.5	28.0	26.5
85000.	191.	23.5	22.0	21.0
90000.	179.	18.6	17.7	16.7
95000.	160.	14.9	14.1	13.2
100000.	121.	11.3	11.3	10.5

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	SUMMER	
					1	2
6000.	434.	826.	820.	812.		
8000.	430.	770.	764.	756.		
10000.	433.	717.	711.	702.		
12000.	433.	667.	661.	651.		
14000.	432.	620.	613.	603.		
15000.	414.	597.	591.	580.		
16000.	429.	576.	569.	558.		
18000.	425.	534.	527.	515.		
20000.	425.	494.	487.	476.		
25000.	410.	405.	399.	387.		
30000.	415.	329.	324.	312.		
35000.	388.	266.	260.	249.		
40000.	396.	212.	207.	195.		
45000.	365.	167.	163.	154.		
50000.	355.	130.	127.	120.		
55000.	321.	101.	98.	94.		
60000.	307.	79.	76.	74.		
65000.	280.	61.	60.	58.		
70000.	273.	48.0	47.0	45.5		
75000.	254.	38.0	37.0	36.0		
80000.	239.	30.5	29.5	28.5		
85000.	215.	24.0	23.5	22.5		
90000.	198.	19.1	18.5	17.9		
95000.	177.	15.3	14.8	14.2		
100000.	165.	12.3	11.8	11.3		

MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

FALL

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
6000.	423.	830.	820.	807.
8000.	427.	770.	762.	748.
10000.	427.	715.	708.	693.
12000.	425.	664.	657.	641.
14000.	423.	617.	609.	592.
15000.	413.	594.	586.	568.
16000.	420.	572.	564.	545.
18000.	419.	530.	522.	502.
20000.	421.	490.	482.	462.
25000.	409.	402.	393.	371.
30000.	411.	327.	318.	296.
35000.	386.	264.	254.	236.
40000.	372.	212.	201.	188.
45000.	334.	168.	158.	149.
50000.	313.	129.	123.	117.
55000.	271.	100.	96.	91.
60000.	249.	78.	74.	71.
65000.	232.	61.	58.	55.
70000.	216.	47.5	45.5	43.0
75000.	201.	37.5	36.0	34.0
80000.	192.	29.5	28.5	26.5
85000.	170.	23.5	22.5	21.0
90000.	159.	18.8	17.8	16.5
95000.	149.	15.0	14.2	13.1
100000.	122.	12.0	11.3	10.4

SECTION IV

UPPER AIR DENSITY DATA

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1. Mean and Extreme Upper Air Densities
(Grams/Cubic Meter) at Selected Levels ----- 128

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JANUARY		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	116.	1068.	1027.	993.	
8000.	116.	1002.	963.	932.	
10000.	117.	940.	901.	877.	
12000.	116.	879.	845.	822.	
14000.	116.	822.	792.	771.	
15000.	115.	796.	767.	749.	
16000.	116.	771.	743.	727.	
18000.	116.	715.	697.	681.	
20000.	115.	670.	654.	639.	
25000.	115.	567.	555.	546.	
30000.	110.	476.	467.	441.	
35000.	103.	399.	384.	352.	
40000.	102.	330.	308.	283.	
45000.	95.	267.	245.	229.	
50000.	84.	207.	195.	184.	
55000.	69.	161.	153.	144.	
60000.	56.	124.	119.	115.	
65000.	50.	96.	92.	89.	
70000.	44.	74.	72.	69.	
75000.	38.	58.	56.	54.	
80000.	37.	46.	44.	41.	
85000.	35.	36.	34.	33.	
90000.	31.	28.	27.	26.	
95000.	23.	22.	21.	20.	
100000.	15.	18.	17.	16.	

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

FEBRUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
6000.	112.	1067.	1022.	978.
3000.	112.	1000.	962.	927.
10000.	112.	933.	904.	870.
12000.	112.	876.	848.	819.
14000.	112.	821.	794.	769.
15000.	111.	795.	769.	747.
16000.	112.	763.	745.	725.
18000.	111.	720.	698.	683.
20000.	111.	670.	654.	643.
25000.	107.	566.	555.	545.
30000.	105.	476.	467.	449.
35000.	100.	399.	386.	353.
40000.	93.	330.	307.	282.
45000.	90.	262.	243.	227.
50000.	74.	211.	195.	180.
55000.	64.	167.	153.	145.
60000.	57.	132.	120.	113.
65000.	55.	97.	93.	89.
70000.	54.	75.	72.	69.
75000.	50.	59.	56.	54.
80000.	47.	46.	43.	41.
85000.	44.	36.	34.	33.
90000.	39.	28.	27.	25.
95000.	30.	22.	21.	20.
100000.	24.	18.	16.	16.

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MARCH		MINIMUM
		MAXIMUM	MEAN	
6000.	161.	1077.	1008.	965.
8000.	161.	1018.	950.	917.
10000.	160.	952.	825.	867.
12000.	159.	888.	842.	819.
14000.	159.	832.	791.	772.
15000.	156.	801.	767.	752.
16000.	160.	767.	743.	728.
18000.	159.	720.	697.	683.
20000.	157.	674.	654.	640.
25000.	152.	566.	554.	543.
30000.	154.	476.	466.	445.
25000.	147.	400.	387.	352.
40000.	144.	331.	312.	284.
45000.	132.	266.	246.	229.
50000.	129.	206.	196.	182.
55000.	112.	161.	154.	146.
60000.	102.	125.	119.	113.
65000.	88.	96.	93.	89.
70000.	85.	75.	72.	69.
75000.	69.	58.	56.	53.
80000.	58.	46.	43.	42.
85000.	48.	36.	34.	33.
90000.	44.	28.	27.	26.
95000.	40.	22.	21.	20.
100000.	30.	18.	17.	16.

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS / CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
6000.	139.	1022.	991.	961.
8000.	137.	968.	938.	912.
10000.	137.	914.	886.	865.
12000.	137.	859.	835.	817.
14000.	137.	800.	785.	768.
15000.	136.	775.	761.	743.
16000.	136.	751.	737.	721.
18000.	137.	706.	692.	679.
20000.	137.	662.	650.	639.
25000.	136.	563.	552.	540.
30000.	135.	475.	467.	453.
35000.	130.	399.	390.	371.
40000.	122.	332.	317.	292.
45000.	115.	265.	250.	235.
50000.	110.	213.	199.	185.
55000.	103.	163.	156.	148.
60000.	93.	128.	122.	117.
65000.	84.	98.	94.	91.
70000.	82.	75.	73.	69.
75000.	78.	58.	56.	54.
80000.	75.	45.	44.	42.
85000.	70.	36.	35.	33.
90000.	64.	28.	27.	26.
95000.	57.	22.	21.	20.
100000.	41.	18.	17.	16.

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAY		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	128.	1022.	977.	946.	
8000.	127.	969.	925.	899.	
10000.	125.	904.	875.	853.	
12000.	124.	851.	827.	809.	
14000.	124.	798.	780.	761.	
15000.	121.	770.	756.	740.	
16000.	121.	748.	734.	714.	
18000.	121.	702.	690.	671.	
20000.	121.	659.	648.	632.	
25000.	119.	559.	551.	542.	
30000.	119.	475.	467.	457.	
35000.	112.	400.	392.	376.	
40000.	113.	333.	323.	302.	
45000.	103.	272.	257.	245.	
50000.	100.	212.	202.	192.	
55000.	98.	166.	159.	150.	
60000.	94.	130.	125.	118.	
65000.	91.	100.	96.	91.	
70000.	90.	76.	74.	72.	
75000.	81.	59.	57.	55.	
80000.	78.	46.	45.	43.	
85000.	73.	36.	35.	34.	
90000.	71.	28.	28.	27.	
95000.	63.	23.	22.	21.	
100000.	50.	18.	17.		

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JUNE		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	128.	1001.	964.	926.	885.
8000.	126.	945.	912.	885.	839.
10000.	126.	886.	863.	839.	802.
12000.	126.	832.	817.	802.	772.
14000.	125.	784.	772.	762.	742.
15000.	122.	760.	750.	742.	721.
16000.	124.	737.	728.	721.	674.
18000.	123.	695.	685.	633.	633.
20000.	123.	654.	643.	537.	537.
25000.	122.	558.	548.	456.	456.
30000.	118.	472.	465.	378.	378.
35000.	111.	396.	391.	307.	307.
40000.	113.	331.	324.	253.	253.
45000.	110.	273.	264.	195.	195.
50000.	104.	222.	211.	156.	156.
55000.	98.	174.	165.	120.	120.
60000.	96.	132.	126.	94.	94.
65000.	94.	99.	97.	73.	73.
70000.	91.	77.	75.	57.	57.
75000.	88.	60.	58.	44.	44.
80000.	78.	47.	46.	35.	35.
85000.	73.	37.	36.	27.	27.
90000.	65.	29.	28.	22.	22.
95000.	58.	23.	22.	18.	18.
100000.	53.	18.	17.		

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JULY		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	149.	990.	962.	936.	
8000.	147.	935.	911.	893.	
10000.	150.	880.	862.	847.	
12000.	150.	828.	815.	801.	
14000.	150.	780.	770.	760.	
15000.	141.	758.	748.	739.	
16000.	149.	735.	726.	718.	
18000.	146.	691.	683.	675.	
20000.	146.	650.	640.	634.	
25000.	139.	550.	544.	539.	
30000.	145.	469.	462.	455.	
35000.	132.	397.	391.	388.	
40000.	137.	332.	329.	324.	
45000.	121.	276.	272.	266.	
50000.	117.	226.	220.	212.	
55000.	103.	177.	170.	165.	
60000.	101.	133.	129.	126.	
65000.	89.	100.	98.	96.	
70000.	89.	77.	76.	73.	
75000.	79.	60.	59.	57.	
80000.	61.	47.	46.	45.	
85000.	70.	37.	36.	35.	
90000.	69.	29.	28.	27.	
95000.	57.	23.	22.	21.	
100000.	57.	18.	17.		

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	AUGUST		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	157.	994.	965.	934.	
8000.	157.	942.	913.	890.	
10000.	157.	888.	864.	847.	
12000.	157.	835.	817.	805.	
14000.	157.	784.	772.	763.	
15000.	151.	759.	749.	742.	
16000.	156.	735.	727.	721.	
18000.	156.	694.	684.	677.	
20000.	156.	652.	642.	634.	
25000.	149.	554.	545.	538.	
30000.	152.	471.	463.	456.	
35000.	144.	399.	391.	386.	
40000.	145.	333.	327.	322.	
45000.	134.	276.	270.	262.	
50000.	132.	225.	217.	208.	
55000.	119.	178.	169.	162.	
60000.	110.	133.	128.	124.	
65000.	96.	100.	98.	95.	
70000.	93.	78.	76.	74.	
75000.	85.	60.	59.	58.	
80000.	80.	47.	46.	45.	
85000.	69.	37.	36.	36.	
90000.	63.	29.	29.	28.	
95000.	60.	23.	23.	22.	
100000.	55.	18.	18.	17.	

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SEPTEMBER		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	121.	1009.	975.	952.	
8000.	123.	952.	922.	905.	
10000.	123.	895.	871.	859.	
12000.	121.	845.	822.	812.	
14000.	121.	791.	775.	769.	
15000.	117.	767.	752.	738.	
16000.	121.	744.	729.	714.	
18000.	120.	700.	684.	671.	
20000.	122.	658.	641.	62.	
25000.	116.	562.	546.	537.	
30000.	120.	473.	464.	455.	
35000.	115.	397.	390.	374.	
40000.	114.	331.	324.	302.	
45000.	106.	273.	266.	247.	
50000.	104.	223.	215.	199.	
55000.	91.	173.	167.	155.	
60000.	82.	131.	127.	122.	
65000.	76.	100.	97.	93.	
70000.	73.	77.	75.	73.	
75000.	72.	60.	59.	57.	
80000.	71.	47.	46.	44.	
85000.	69.	37.	36.	35.	
90000.	65.	29.	28.	27.	
95000.	62.	23.	22.	22.	
100000.	55.	18.	18.	17.	

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	OCTOBER		
		MAXIMUM	MEAN	MINIMUM
6000.	143.	1036.	992.	959.
8000.	144.	980.	935.	909.
10000.	145.	927.	881.	860.
12000.	145.	870.	829.	810.
14000.	142.	820.	780.	763.
15000.	139.	788.	756.	740.
16000.	142.	756.	732.	714.
18000.	141.	703.	687.	677.
20000.	141.	657.	645.	629.
25000.	137.	558.	550.	534.
30000.	137.	476.	467.	451.
35000.	133.	402.	391.	373.
40000.	132.	330.	323.	303.
45000.	117.	271.	261.	253.
50000.	108.	218.	208.	200.
55000.	94.	172.	163.	154.
60000.	89.	130.	125.	121.
65000.	82.	99.	95.	91.
70000.	80.	76.	74.	71.
75000.	75.	59.	57.	55.
80000.	71.	46.	45.	43.
85000.	56.	36.	35.	33.
90000.	53.	28.	28.	27.
95000.	46.	22.	22.	21.
100000.	33.	18.	17.	17.

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	NOVEMBER
6000.	157.	1052.	1005.	972.	
8000.	159.	986.	945.	920.	
10000.	158.	922.	898.	871.	
12000.	158.	862.	834.	815.	
14000.	160.	609.	783.	769.	
15000.	157.	783.	758.	743.	
16000.	157.	757.	734.	718.	
18000.	158.	709.	689.	673.	
20000.	158.	661.	647.	633.	
25000.	156.	562.	550.	534.	
30000.	154.	473.	465.	448.	
35000.	137.	397.	390.	370.	
40000.	125.	332.	322.	299.	
45000.	110.	274.	258.	244.	
50000.	100.	218.	204.	194.	
55000.	86.	169.	159.	152.	
60000.	78.	128.	123.	119.	
65000.	74.	98.	94.	91.	
70000.	62.	75.	73.	71.	
75000.	54.	58.	57.	55.	
80000.	50.	46.	44.	43.	
85000.	44.	36.	34.	34.	
90000.	41.	28.	27.	26.	
95000.	41.	22.	21.	20.	
100000.	34.	17.	16.	17.	

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	DECEMBER		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	147.	1067.	1019.	976.	976.
8000.	148.	995.	957.	928.	928.
10000.	149.	939.	898.	874.	874.
12000.	149.	877.	841.	815.	815.
14000.	149.	823.	786.	768.	768.
15000.	149.	796.	763.	743.	743.
16000.	148.	755.	738.	720.	720.
18000.	147.	708.	693.	678.	678.
20000.	146.	665.	650.	634.	634.
25000.	138.	566.	553.	535.	535.
30000.	134.	474.	466.	448.	448.
35000.	126.	397.	386.	365.	365.
40000.	119.	330.	314.	297.	297.
45000.	107.	266.	250.	237.	237.
50000.	92.	211.	198.	189.	189.
55000.	81.	166.	156.	148.	148.
60000.	73.	126.	121.	117.	117.
65000.	65.	96.	93.	89.	89.
70000.	63.	74.	72.	70.	70.
75000.	61.	57.	56.	56.	56.
80000.	57.	45.	44.	43.	43.
85000.	53.	35.	34.	34.	34.
90000.	52.	27.	27.	26.	26.
95000.	42.	21.	21.	20.	20.
100000.	37.	17.	16.	16.	16.

**MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY SEASONS**

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	WINTER	MAXIMUM	MEAN	MINIMUM
6000.	375.		1068.	1022.	976.
8000.	376.		1002.	960.	927.
10000.	378.		940.	901.	870.
12000.	377.		879.	844.	815.
14000.	377.		823.	791.	768.
15000.	375.		796.	766.	743.
16000.	376.		771.	742.	720.
18000.	374.		720.	696.	678.
20000.	372.		670.	652.	634.
25000.	369.		567.	554.	535.
30000.	349.		476.	466.	441.
35000.	329.		399.	385.	352.
40000.	314.		330.	310.	282.
45000.	292.		267.	246.	227.
50000.	250.		211.	196.	180.
55000.	214.		167.	154.	144.
60000.	186.		132.	120.	113.
65000.	170.		97.	93.	89.
70000.	161.		75.	72.	69.
75000.	149.		59.	56.	54.
80000.	141.		46.	44.	41.
85000.	132.		36.	34.	33.
90000.	122.		28.	27.	25.
95000.	95.		22.	21.	20.
100000.	76.		18.	16.	16.

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	SPRING
6000.	428.	1077.	993.	946.	
8000.	425.	1018.	939.	899.	
10000.	422.	952.	886.	853.	
12000.	420.	888.	835.	809.	
14000.	420.	832.	786.	761.	
15000.	413.	801.	762.	740.	
16000.	417.	767.	738.	714.	
18000.	417.	720.	693.	671.	
20000.	415.	674.	651.	632.	
25000.	407.	566.	553.	540.	
30000.	408.	476.	467.	445.	
35000.	389.	400.	389.	352.	
40000.	379.	333.	317.	284.	
45000.	350.	272.	251.	229.	
50000.	339.	213.	199.	182.	
55000.	313.	166.	156.	146.	
60000.	289.	130.	122.	113.	
65000.	263.	100.	94.	89.	
70000.	257.	76.	73.	69.	
75000.	228.	59.	57.	53.	
80000.	211.	46.	44.	42.	
85000.	191.	36.	35.	33.	
90000.	179.	28.	27.	26.	
95000.	160.	23.	21.	20.	
100000.	121.	18.	17.	16.	

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SUMMER		MEAN	MINIMUM
		MAXIMUM			
6000.	434.	1001.		963.	926.
8000.	430.	945.		912.	885.
10000.	433.	888.		863.	839.
12000.	433.	835.		816.	801.
14000.	432.	784.		771.	760.
15000.	414.	760.		749.	739.
16000.	429.	737.		727.	718.
18000.	425.	695.		684.	674.
20000.	425.	654.		642.	633.
25000.	410.	558.		546.	537.
30000.	415.	472.		463.	455.
35000.	387.	399.		391.	378.
40000.	395.	333.		327.	307.
45000.	365.	276.		269.	253.
50000.	353.	226.		216.	195.
55000.	320.	178.		168.	156.
60000.	307.	133.		128.	120.
65000.	279.	100.		98.	94.
70000.	273.	78.		76.	73.
75000.	252.	60.		59.	57.
80000.	239.	47.		46.	44.
85000.	212.	37.		36.	35.
90000.	197.	29.		28.	27.
95000.	175.	23.		22.	22.
100000.	165.	18.		18.	17.

MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	FALL
6000.	421.	1052.	992.	952.	
8000.	426.	986.	935.	905.	
10000.	426.	927.	881.	859	
12000.	424.	870.	829.	810.	
14000.	423.	820.	780.	763.	
15000.	413.	788.	756.	738.	
16000.	420.	757.	732.	714.	
18000.	419.	709.	687.	671.	
20000.	421.	661.	645.	629.	
25000.	409.	562.	549.	534.	
30000.	411.	476.	466.	448.	
35000.	385.	402.	391.	370.	
40000.	371.	332.	323.	299.	
45000.	333.	274.	262.	244.	
50000.	312.	223.	209.	194.	
55000.	271.	173.	163.	152.	
60000.	249.	131.	125.	119.	
65000.	232.	100.	96.	91.	
70000.	215.	77.	74.	71.	
75000.	201.	60.	57.	55.	
80000.	192.	47.	45.	43.	
85000.	169.	37.	35.	33.	
90000.	159.	29.	28.	26.	
95000.	149.	23.	22.	20.	
100000.	122.	18.	16.		

SECTION V

UPPER AIR MOISTURE DATA

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MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JANUARY		MINIMUM
		MAXIMUM	MEAN	
6000.	116.	5.098	2.171	0.643
8000.	114.	4.405	1.899	0.587
10000.	115.	3.779	1.542	0.480
12000.	115.	2.439	1.236	0.103
14000.	114.	2.063	0.950	0.086
16000.	112.	2.165	0.761	0.099
18000.	113.	2.172	0.570	0.082
20000.	111.	1.502	0.413	0.030
22000.	111.	1.221	0.296	0.009
24000.	107.	0.645	0.213	0.019
26000.	102.	1.570	0.159	0.006
28000.	78.	0.416	0.099	0.006
30000.	54.	0.250	0.052	0.003
32000.	28.	0.119	0.021	0.001
34000.	10.	0.040	0.009	0.001
36000.	3.	0.003	0.002	0.002
38000.	0.	0.	0.	0.
40000.	0.	0.	0.	0.
42000.	0.	0.	0.	0.
44000.	0.	0.	0.	0.
46000.	0.	0.	0.	0.
48000.	0.	0.	0.	0.
50000.	0.	0.	0.	0.

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MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	FEBRUARY		MINIMUM
		MAXIMUM	MEAN	
6000.	112-	6.779	2.262	0.762
8000.	112-	5.360	1.917	0.532
10000.	112-	3.891	1.531	0.178
12000.	111-	3.781	1.151	0.144
14000.	109-	2.900	0.870	0.083
16000.	108-	3.099	0.651	0.172
18000.	107-	1.947	0.530	0.102
20000.	107-	1.439	0.416	0.056
22000.	106-	1.519	0.325	0.027
24000.	104-	0.879	0.236	0.004
26000.	98-	0.596	0.155	0.001
28000.	84-	0.319	0.094	0.005
30000.	51-	0.231	0.050	0.002
32000.	21-	0.077	0.021	0.001
34000.	6-	0.034	0.010	0.001
36000.	2-	0.012	0.007	0.001
38000.	1-	0.002	0.002	0.002
40000.	0-	0-	0-	0-
42000.	0-	0-	0-	0-
44000.	0-	0-	0-	0-
46000.	0-	0-	0-	0-
48000.	0-	0-	0-	0-
50000.	0-	0-	0-	0-

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
BY MONTHS
JALLEN SITE (JALL)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MARCH		MEAN	MINIMUM
		MAXIMUM	MEAN		
6000.	161.	6.428	2.560	0.535	0-
8000.	161.	5.505	2.188	0.407	0-
10000.	160.	4.328	1.793	0.277	0-
12000.	159.	3.284	1.401	0.375	0-
14000.	159.	2.334	1.066	0.175	0-
16000.	159.	1.960	0.810	0.148	0-
18000.	158.	2.284	0.623	0.103	0-
20000.	155.	1.802	0.475	0.046	0-
22000.	153.	1.374	0.358	0.008	0-
24000.	152.	0.973	0.265	0.023	0-
26000.	142.	0.725	0.199	0.012	0-
28000.	123.	0.438	0.136	0.007	0-
30000.	96.	0.317	0.081	0.002	0-
32000.	62.	0.155	0.037	0.001	0-
34000.	32.	0.054	0.018	0.001	0-
36000.	15.	0.014	0.007	0.001	0-
38000.	5.	0.026	0.006	0.000	0-
40000.	0.	0.	0.	0.	0-
42000.	0.	0.	0.	0.	0-
44000.	0.	0.	0.	0.	0-
46000.	0.	0.	0.	0.	0-
48000.	0.	0.	0.	0.	0-
50000.	0.	0.	0.	0.	0-

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	OBSERVATIONS	APRIL	
		MAXIMUM	MINIMUM
6000.	139.	7.447	1.129
8000.	137.	6.533	0.276
10000.	136.	6.325	0.548
12000.	136.	4.868	0.469
14000.	135.	4.015	0.329
16000.	131.	3.466	0.030
18000.	135.	2.511	0.082
20000.	133.	1.920	0.145
22000.	132.	1.639	0.474
24000.	130.	1.299	0.345
26000.	128.	0.917	0.004
28000.	127.	0.568	0.003
30000.	117.	0.316	0.002
32000.	87.	0.165	0.002
34000.	50.	0.066	0.001
36000.	21.	0.046	0.001
38000.	6.	0.030	0.001
40000.	1.	0.018	0.018
42000.	1.	0.008	0.008
44000.	1.	0.001	0.001
46000.	0.	0.	0.
48000.	0.	0.	0.
50000.	0.	0.	0.

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
BY MONTHS

JALLEN SITE (JALA)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAY			MINIMUM
		MAXIMUM	MEAN	MEAN	
6000.	125-	11.348	4.691	4.691	1.273
8000.	126-	8.474	3.935	3.935	1.127
10000.	125-	6.513	3.222	3.222	0.842
12000.	125-	6.457	2.561	2.561	0.640
14000.	124-	6.099	2.069	2.069	0.395
16000.	120-	5.233	1.667	1.667	0.134
18000.	120-	4.464	1.218	1.218	0.097
20000.	120-	3.857	0.863	0.863	0.056
22000.	121-	3.339	0.624	0.624	0.165
24000.	120-	2.875	0.483	0.483	0.117
26000.	120-	1.512	0.330	0.330	0.020
28000.	120-	1.091	0.229	0.229	0.010
30000.	119-	0.657	0.145	0.145	0.011
32000.	108-	0.383	0.079	0.079	0.005
34000.	70-	0.214	0.033	0.033	0.002
36000.	32-	0.041	0.011	0.011	0.001
38000.	9-	0.008	0.003	0.003	0.-
40000.	0-	0-	0-	0-	0.-
42000.	0-	0-	0-	0-	0.-
44000.	0-	0-	0-	0-	0.-
46000.	0-	0-	0-	0-	0.-
48000.	0-	0-	0-	0-	0.-
50000.	0-	0-	0-	0-	0.-

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JUNE		MINIMUM
		MAXIMUM	MEAN	
6000.	128.	12.334	6.417	1.326
8000.	126.	10.601	5.466	0.570
10000.	126.	8.779	4.521	0.424
12000.	126.	7.891	3.720	0.487
14000.	125.	7.090	3.057	0.415
16000.	124.	5.274	2.366	0.448
18000.	122.	4.384	1.697	0.403
20000.	120.	3.524	1.159	0.452
22000.	120.	2.310	0.811	0.037
24000.	120.	1.307	0.576	0.043
26000.	117.	1.398	0.435	0.093
28000.	115.	0.950	0.304	0.008
30000.	109.	0.627	0.216	0.005
32000.	97.	0.468	0.147	0.022
34000.	88.	0.302	0.077	0.003
36000.	52.	0.168	0.039	0.002
38000.	28.	0.065	0.018	0.001
40000.	12.	0.017	0.006	0.001
42000.	1.	0.006	0.006	0.006
44000.	0.	0.	0.	0.
46000.	0.	0.	0.	0.
48000.	0.	0.	0.	0.
50000.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JULY		MINIMUM
		MAXIMUM	MEAN	
6000-	149-	13..616	9..603	6..109
8000-	147-	10..984	8..329	5..965
10000-	150-	9..861	7..050	3..479
12000-	150-	8..772	5..958	1..636
14000-	150-	7..928	4..880	0..880
16000-	149-	6..128	3..999	1..082
18000-	146-	5..399	3..147	0..910
20000-	146-	4..302	2..361	0..141
22000-	146-	3..351	1..673	0..348
24000-	146-	2..628	1..160	0..279
26000-	144-	2..068	0..829	0..142
28000-	142-	1..318	0..593	0..016
30000-	142-	0..915	0..401	0..011
32000-	135-	0..598	0..276	0..008
34000-	133-	0..385	0..160	0..027
36000-	120-	0..207	0..089	0..003
38000-	86-	0..096	0..035	0..002
40000-	46-	0..038	0..014	0..001
42000-	14-	0..016	0..005	0..001
44000-	3-	0..005	0..003	0..-
46000-	0-	0..-	0..-	0..-
48000-	0-	0..-	0..-	0..-
50000-	0.	0..-	0..-	0..-

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	AUGUST	
		MAXIMUM	MEAN
6000.	157.	14.642	9.454
8000.	157.	11.772	8.117
10000.	157.	9.879	6.920
12000.	157.	9.393	3.600
14000.	157.	8.04	2.307
16000.	156.	6.152	5.714
18000.	156.	5.242	4.596
20000.	156.	4.285	4.527
22000.	154.	3.328	2.880
24000.	154.	2.568	2.429
26000.	154.	1.923	2.038
28000.	150.	1.444	1.444
30000.	148.	1.012	0.982
32000.	148.	0.680	0.746
34000.	135.	0.436	0.522
36000.	93.	0.266	0.370
38000.	56.	0.121	0.090
40000.	24.	0.043	0.027
42000.	5.	0.006	0.012
44000.	0.	0.	0.003
46000.	0.	0.	0.002
48000.	0.	0.	0.003
50000.	0.	0.	0.003

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	SEPTEMBER	
				MINIMUM	
6000-	121-	12.021	8.305	3.318	
8000-	123-	11.013	7.107	3.149	
10000-	123-	9.588	5.932	2.677	
12000-	121-	8.408	4.686	0.594	
14000-	121-	6.615	3.650	0.463	
16000-	121-	5.621	2.804	0.105	
18000-	117-	4.806	2.009	0.458	
20000-	118-	3.518	1.464	0.042	
22000-	116-	2.864	1.097	0.096	
24000-	116-	2.382	0.775	0.056	
26000-	117-	1.812	0.571	0.121	
28000-	117-	1.286	0.412	0.075	
30000-	117-	0.913	0.301	0.018	
32000-	112-	0.568	0.199	0.011	
34000-	89-	0.377	0.114	0.004	
36000-	50-	0.285	0.053	0.002	
38000-	22-	0.124	0.029	0.002	
40000-	9-	0.025	0.008	0.001	
42000-	1-	0.009	0.009	0.009	
44000-	1-	0.002	0.002	0.002	
46000-	0-	0-	0-	0-	
48000-	0-	0-	0-	0-	
50000-	0-	0-	0-	0-	

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	OCTOBER		MINIMUM
		MAXIMUM	MEAN	
6000.	143-	10.777	4.969	2.012
8000.	144-	9.484	4.312	1.900
10000.	145-	8.150	3.584	0.630
12000.	145-	7.432	2.708	0.275
14000.	139-	5.669	1.919	0.279
16000.	136-	3.779	1.357	0.048
18000.	130-	2.898	1.048	0.030
20000.	126-	2.505	0.808	0.192
22000.	125-	2.001	0.620	0.071
24000.	125-	1.911	0.477	0.052
26000.	125-	1.373	0.348	0.012
28000.	123-	1.009	0.250	0.062
30000.	120-	0.641	0.170	0.013
32000.	110-	0.391	0.094	0.002
34000.	76-	0.256	0.051	0.001
36000.	35-	0.080	0.030	0.001
38000.	12-	0.034	0.018	0.002
40000.	5-	0.012	0.008	0.001
42000.	2-	0.002	0.001	0.001
44000.	0-	0-	0-	0-
46000.	0-	0-	0-	0-
48000.	0-	0-	0-	0-
50000.	0-	0-	0-	0-

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
BY MONTHS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	NOVEMBER	
		MAXIMUM	MEAN
6000.	159.	8.328	3.815
6000.	159.	6.933	3.278
10000.	157.	6.964	2.650
12000.	156.	6.057	2.068
14000.	155.	5.389	1.632
16000.	150.	4.607	1.315
18000.	153.	3.190	1.004
20000.	152.	2.773	0.829
22000.	154.	2.283	0.641
24000.	153.	1.663	0.503
26000.	151.	1.194	0.370
28000.	143.	0.819	0.264
30000.	132.	0.535	0.175
32000.	109.	0.297	0.095
34000.	72.	0.166	0.046
36000.	30.	0.067	0.022
38000.	14.	0.033	0.010
40000.	3.	0.014	0.008
42000.	1.	0.005	0.005
44000.	1.	0.001	0.001
46000.	0.	0.	0.
48000.	0.	0.	0.
50000.	0.	0.	0.
		1.727	0.814
		0.849	0.493
		0.327	0.327
		0.328	0.328
		0.035	0.035
		0.163	0.163
		0.015	0.015
		0.065	0.065
		0.027	0.027
		0.018	0.018
		0.009	0.009
		0.005	0.005
		0.001	0.001
		0.	0.
		0.	0.
		0.	0.
		0.	0.

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	DECEMBER	
		MAXIMUM	MINIMUM
6000.	147.	6.736	1.115
8000.	148.	6.354	0.849
10000.	149.	5.725	0.223
12000.	146.	5.140	0.029
14000.	144.	4.138	0.126
16000.	140.	3.413	0.240
18000.	138.	3.226	0.925
20000.	134.	2.693	0.925
22000.	130.	2.178	0.685
24000.	129.	1.534	0.559
26000.	128.	0.770	0.418
28000.	119.	0.459	0.306
30000.	94.	0.304	0.203
32000.	49.	0.294	0.138
34000.	15.	0.078	0.085
36000.	4.	0.016	0.043
38000.	2.	0.003	0.046
40000.	0.	0.	0.009
42000.	0.	0.	0.002
44000.	0.	0.	0.001
46000.	0.	0.	0.002
48000.	0.	0.	0.002
50000.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JANUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM
4051.- 6000.	102.	0.308	0.152	0.063
6000.- 8000.	114.	0.262	0.121	0.038
8000.- 10000.	114.	0.228	0.095	0.031
10000.- 12000.	114.	0.155	0.072	0.016
12000.- 14000.	114.	0.109	0.054	0.016
14000.- 16000.	111.	0.090	0.040	0.004
16000.- 18000.	112.	0.093	0.029	0.005
18000.- 20000.	111.	0.073	0.020	0.002
20000.- 22000.	109.	0.051	0.014	0.003
22000.- 24000.	107.	0.031	0.009	0.001
24000.- 26000.	102.	0.029	0.006	0.001
26000.- 28000.	78.	0.026	0.004	0.001
28000.- 30000.	54.	0.009	0.002	0.000
30000.- 32000.	28.	0.005	0.001	0.000
32000.- 34000.	10.	0.002	0.001	0.000
34000.- 36000.	3.	0.000	0.	0.
36000.- 38000.	0.	0.	0.	0.
38000.- 40000.	0.	0.	0.	0.
40000.- 42000.	0.	0.	0.	0.
42000.- 44000.	0.	0.	0.	0.
44000.- 46000.	0.	0.	0.	0.
46000.- 48000.	0.	0.	0.	0.
48000.- 50000.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	FEBRUARY	
		MAXIMUM	MEAN
4051.-	6000.	104.-	0.485
6000.-	8000.	112.-	0.353
8000.-	10000.	112.-	0.253
10000.-	12000.	111.-	0.190
12000.-	14000.	109.-	0.160
14000.-	16000.	107.-	0.135
16000.-	16000.	107.-	0.107
18000.-	20000.	107.-	0.060
20000.-	22000.	106.-	0.055
22000.-	24000.	103.-	0.041
24000.-	26000.	98.-	0.024
26000.-	28000.	84.-	0.013
28000.-	30000.	51.-	0.008
30000.-	32000.	21.-	0.004
32000.-	34000.	6.-	0.001
34000.-	36000.	2.-	0.001
36000.-	38000.-	1.-	0.000
38000.-	40000.-	0.-	0.-
40000.-	42000.-	0.-	0.-
42000.-	44000.-	0.-	0.-
44000.-	46000.-	0.-	0.-
46000.-	48000.-	0.-	0.-
48000.-	50000.-	0.-	0.-

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MARCH		MINIMUM
		MAXIMUM	MEAN	
4051.- 6000.-	154	0.441	0.186	0.083
6000.- 8000.-	161	0.307	0.138	0.029
8000.- 10000.-	160	0.271	0.109	0.020
10000.- 12000.-	159	0.177	0.083	0.018
12000.- 14000.-	158	0.121	0.060	0.017
14000.- 16000.-	158	0.093	0.043	0.007
16000.- 18000.-	158	0.074	0.031	0.007
18000.- 20000.-	155	0.081	0.022	0.003
20000.- 22000.-	153	0.059	0.016	0.001
22000.- 24000.-	149	0.041	0.011	0.002
24000.- 26000.-	142	0.028	0.008	0.001
26000.- 28000.-	123	0.017	0.005	0.001
28000.- 30000.-	96	0.010	0.003	0.001
30000.- 32000.-	62	0.006	0.002	0.000
32000.- 34000.-	32	0.003	0.001	0.000
34000.- 36000.-	15	0.001	0.000	0.000
36000.- 38000.-	5	0.000	0.000	0.000
38000.- 40000.-	0	0	0	0
40000.- 42000.-	0	0	0	0
42000.- 44000.-	0	0	0	0
44000.- 46000.-	0	0	0	0
46000.- 48000.-	0	0	0	0
48000.- 50000.	0	0	0	0

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	APRIL		MEAN MAXIMUM	MEAN MINIMUM
		MEAN	MAXIMUM		
4051.- 6000.	136.-	0.483	0.201	0.070	0.058
6000.- 8000.	136.-	0.395	0.170	0.048	0.048
8000.- 10000.	136.-	0.327	0.133	0.036	0.036
10000.- 12000.	135.-	0.287	0.100	0.025	0.025
12000.- 14000.	135.-	0.202	0.073	0.008	0.008
14000.- 16000.	132.-	0.162	0.053	0.009	0.009
16000.- 18000.	133.-	0.123	0.039	0.002	0.002
18000.- 20000.	133.-	0.087	0.028	0.003	0.003
20000.- 22000.	132.-	0.065	0.021	0.004	0.004
22000.- 24000.	130.-	0.052	0.014	0.002	0.002
24000.- 26000.	128.-	0.036	0.010	0.002	0.002
26000.- 28000.	127.-	0.023	0.006	0.001	0.001
28000.- 30000.	117.-	0.012	0.004	0.001	0.001
30000.- 32000.	87.-	0.006	0.002	0.000	0.000
32000.- 34000.	50.-	0.003	0.001	0.000	0.000
34000.- 36000.	21.-	0.001	0.000	0.000	0.000
36000.- 38000.	6.-	0.001	0.000	0.000	0.000
38000.- 40000.	1.-	0.000	0.000	0.000	0.000
40000.- 42000.	1.-	0.000	0.000	0.000	0.000
42000.- 44000.	1.-	0.000	0.000	0.000	0.000
44000.- 46000.	0.-	0.-	0.-	0.-	0.-
46000.- 48000.	0.-	0.-	0.-	0.-	0.-
48000.- 50000.	0.-	0.-	0.-	0.-	0.-

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JAILEN SITE (JAIL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAY		MEAN		MINIMUM	
		MAXIMUM	MEAN	MAXIMUM	MEAN	MAXIMUM	MEAN
4051.- 6000.	124.	0.678	0.289	0.063	0.063	0.244	0.071
6000.- 8000.	124.	0.556	0.244	0.054	0.054	0.192	0.054
8000.- 10000.	125.	0.359	0.192	0.039	0.039	0.147	0.039
10000.- 12000.	125.	0.312	0.147	0.027	0.027	0.111	0.027
12000.- 14000.	124.	0.300	0.111	0.013	0.013	0.084	0.013
14000.- 16000.	120.	0.254	0.084	0.005	0.005	0.061	0.005
16000.- 18000.	119.	0.292	0.061	0.006	0.006	0.112	0.006
18000.- 20000.	119.	0.162	0.028	0.004	0.004	0.132	0.004
20000.- 22000.	120.	0.106	0.019	0.006	0.006	0.071	0.006
22000.- 24000.	120.	0.013	0.002	0.002	0.002	0.013	0.002
24000.- 26000.	119.	0.007	0.002	0.001	0.001	0.040	0.001
26000.- 28000.	119.	0.009	0.001	0.001	0.001	0.025	0.001
28000.- 30000.	119.	0.005	0.001	0.001	0.001	0.025	0.001
30000.- 32000.	108.	0.014	0.003	0.000	0.000	0.014	0.000
32000.- 34000.	70.	0.007	0.002	0.000	0.000	0.007	0.000
34000.- 36000.	32.	0.002	0.000	0.000	0.000	0.002	0.000
36000.- 38000.	9.	0.000	0.	0.	0.	0.000	0.
38000.- 40000.	0.	0.	0.	0.	0.	0.	0.
40000.- 42000.	0.	0.	0.	0.	0.	0.	0.
42000.- 44000.	0.	0.	0.	0.	0.	0.	0.
44000.- 46000.	0.	0.	0.	0.	0.	0.	0.
46000.- 48000.	0.	0.	0.	0.	0.	0.	0.
48000.- 50000.	0.	0.	0.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JUNE		MEAN	MAXIMUM	MINIMUM
		MEAN	MAXIMUM			
4051.- 6000.	128.	0.818	0.395	0.094	0.053	0.053
6000.- 8000.	126.	0.625	0.334	0.053	0.018	0.018
8000.- 10000.	126.	0.518	0.264	0.053	0.008	0.008
10000.- 12000.	126.	0.421	0.206	0.053	0.014	0.014
12000.- 14000.	125.	0.339	0.161	0.053	0.003	0.003
14000.- 16000.	123.	0.249	0.121	0.053	0.012	0.012
16000.- 18000.	122.	0.197	0.086	0.057	0.015	0.015
18000.- 20000.	120.	0.154	0.057	0.037	0.004	0.004
20000.- 22000.	119.	0.096	0.058	0.024	0.003	0.003
22000.- 24000.	119.	0.058	0.037	0.017	0.002	0.002
24000.- 26000.	117.	0.037	0.036	0.011	0.003	0.003
26000.- 28000.	113.	0.036	0.023	0.008	0.001	0.001
28000.- 30000.	108.	0.023	0.014	0.005	0.001	0.001
30000.- 32000.	97.	0.014	0.009	0.003	0.001	0.001
32000.- 34000.	88.	0.009	0.006	0.002	0.000	0.000
34000.- 36000.	52.	0.006	0.003	0.001	0.000	0.000
36000.- 38000.	28.	0.003	0.001	0.000	0.000	0.000
38000.- 40000.	12.	0.001	0.000	0.000	0.000	0.000
40000.- 42000.	1.	0.000	0.	0.	0.	0.
42000.- 44000.	0.	0.	0.	0.	0.	0.
44000.- 46000.	0.	0.	0.	0.	0.	0.
46000.- 48000.	0.	0.	0.	0.	0.	0.
48000.- 50000.	0.	0.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JULY	
		MAXIMUM	MEAN
4051.- 6000.	148.	0.893	0.598
6000.- 8000.	147.	0.654	0.503
8000.- 10000.	147.	0.552	0.407
10000.- 12000.	150.	0.438	0.325
12000.- 14000.	150.	0.372	0.256
14000.- 16000.	149.	0.298	0.198
16000.- 18000.	146.	0.237	0.150
18000.- 20000.	145.	0.188	0.109
20000.- 22000.	145.	0.138	0.075
22000.- 24000.	146.	0.099	0.049
24000.- 26000.	144.	0.068	0.032
26000.- 28000.	141.	0.048	0.022
28000.- 30000.	141.	0.032	0.014
30000.- 32000.	135.	0.020	0.009
32000.- 34000.	133.	0.012	0.006
34000.- 36000.	119.	0.007	0.003
36000.- 38000.	86.	0.003	0.002
38000.- 40000.	46.	0.001	0.001
40000.- 42000.	14.	0.001	0.000
42000.- 44000.	3.	0.000	0.000
44000.- 46000.	0.	0.	0.
46000.- 48000.	0.	0.	0.
48000.- 50000.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JAILEN SITE (JAIL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	AUGUST
4051.-	6000.	154.	0.795	0.574	0.217
4000.-	6000.	157.	0.722	0.492	0.199
8000.-	10000.	157.	0.559	0.399	0.184
10000.-	12000.	157.	0.473	0.317	0.179
12000.-	14000.	157.	0.398	0.244	0.079
14000.-	16000.	156.	0.321	0.186	0.032
16000.-	18000.	155.	0.238	0.138	0.024
18000.-	20000.	156.	0.187	0.097	0.019
20000.-	22000.	154.	0.136	0.064	0.014
22000.-	24000.	154.	0.101	0.041	0.009
24000.-	26000.	153.	0.072	0.029	0.004
26000.-	28000.	150.	0.051	0.019	0.004
28000.-	30000.	148.	0.034	0.013	0.004
30000.-	32000.	145.	0.022	0.008	0.002
32000.-	34000.	135.	0.014	0.005	0.001
34000.-	36000.	93.	0.008	0.003	0.000
36000.-	38000.	56.	0.004	0.001	0.000
38000.-	40000.	24.	0.002	0.001	0.000
40000.-	42000.	5.	0.000	0.000	0.000
42000.-	44000.	0.	0.	0.	0.
44000.-	46000.	0.	0.	0.	0.
46000.-	48000.	0.	0.	0.	0.
48000.-	50000.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967.

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	SEPTEMBER
4051.-	6000.-	121.-	0.748	0.533	0.235
6000.-	8000.-	121.-	0.643	0.437	0.195
8000.-	10000.-	123.-	0.547	0.349	0.168
10000.-	12000.-	121.-	0.446	0.269	0.128
12000.-	14000.-	120.-	0.345	0.199	0.060
14000.-	16000.-	121.-	0.269	0.145	0.013
16000.-	18000.-	117.-	0.211	0.103	0.030
18000.-	20000.-	114.-	0.157	0.069	0.019
20000.-	22000.-	116.-	0.117	0.047	0.003
22000.-	24000.-	114.-	0.090	0.032	0.004
24000.-	26000.-	114.-	0.068	0.022	0.003
26000.-	28000.-	116.-	0.047	0.015	0.003
28000.-	30000.-	117.-	0.031	0.010	0.001
30000.-	32000.-	111.-	0.020	0.007	0.002
32000.-	34000.-	89.-	0.011	0.004	0.001
34000.-	36000.-	50.-	0.008	0.002	0.001
36000.-	38000.-	22.-	0.004	0.001	0.000
38000.-	40000.-	9.-	0.001	0.000	0.000
40000.-	42000.-	1.-	0.000	0.000	0.000
42000.-	44000.-	1.-	0.000	0.-	0.-
44000.-	46000.-	0.-	0.-	0.-	0.-
46000.-	48000.-	0.-	0.-	0.-	0.-
48000.-	50000.-	0.-	0.-	0.-	0.-

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	
				OCTOBER	OCTOBER
4051.-	6000.	142.	0.670	0.148	0.118
6000.-	8000.	143.	0.582	0.260	0.102
8000.-	10000.	144.	0.473	0.214	0.039
10000.-	12000.	145.	0.368	0.160	0.025
12000.-	14000.	139.	0.311	0.112	0.012
14000.-	16000.	136.	0.190	0.074	0.006
16000.-	18000.	130.	0.141	0.052	0.010
18000.-	20000.	125.	0.106	0.037	0.009
20000.-	22000.	123.	0.076	0.027	0.002
22000.-	24000.	125.	0.068	0.019	0.002
24000.-	26000.	124.	0.054	0.013	0.002
26000.-	28000.	123.	0.030	0.009	0.002
28000.-	30000.	120.	0.023	0.006	0.001
30000.-	32000.	109.	0.014	0.004	0.000
32000.-	34000.	76.	0.008	0.002	0.000
34000.-	36000.	35.	0.004	0.001	0.000
36000.-	38000.	12.	0.001	0.000	0.000
38000.-	40000.	5.	0.000	0.000	0.000
40000.-	42000.	2.	0.000	0.000	0.000
42000.-	44000.	0.	0.	0.	0.
44000.-	46000.	0.	0.	0.	0.
46000.-	48000.	0.	0.	0.	0.
48000.-	50000.	0.	0.	0.	0.

**MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
SELECTED LEVELS BY MONTHS
JALLEN SITE (JALI)
PERIOD OF RECORD 1962-1967**

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	NOVEMBER
4051.-	6000.	159.	0.465	0.252	0.120
6000.-	8000.	158.	0.446	0.206	0.090
8000.-	10000.	157.	0.376	0.162	0.058
10000.-	12000.	156.	0.337	0.121	0.038
12000.-	14000.	154.	0.270	0.089	0.022
14000.-	16000.	150.	0.224	0.067	0.017
16000.-	18000.	150.	0.154	0.049	0.008
18000.-	20000.	150.	0.112	0.037	0.005
20000.-	22000.	150.	0.094	0.028	0.007
22000.-	24000.	153.	0.070	0.020	0.001
24000.-	26000.	150.	0.046	0.014	0.002
26000.-	28000.	143.	0.030	0.010	0.002
28000.-	30000.	132.	0.019	0.006	0.002
30000.-	32000.	108.	0.011	0.004	0.001
32000.-	34000.	72.	0.006	0.002	0.000
34000.-	36000.	30.	0.003	0.001	0.000
36000.-	38000.	14.	0.001	0.000	0.000
38000.-	40000.	3.	0.000	0.000	0.000
40000.-	42000.	1.	0.000	0.000	0.000
42000.-	44000.	1.	0.000	0.000	0.000
44000.-	46000.	0.	0.	0.	0.
46000.-	48000.	0.	0.	0.	0.
48000.-	50000.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 JALLEN SITE (JALI)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	OBSERVATIONS	TOTAL	MAXIMUM	MEAN	MINIMUM
			DECEMBER		
4051.-	6000.	147.	0.453	0.217	0.045
6000.-	8000.	147.	0.387	0.171	0.060
8000.-	10000.	148.	0.332	0.130	0.042
10000.-	12000.	146.	0.276	0.096	0.009
12000.-	14000.	144.	0.224	0.070	0.008
14000.-	16000.	140.	0.165	0.050	0.009
16000.-	18000.	136.	0.139	0.035	0.005
18000.-	20000.	134.	0.117	0.025	0.001
20000.-	22000.	130.	0.089	0.018	0.002
22000.-	24000.	129.	0.062	0.013	0.002
24000.-	26000.	126.	0.037	0.006	0.002
26000.-	28000.	119.	0.019	0.005	0.001
28000.-	30000.	94.	0.011	0.003	0.000
30000.-	32000.	49.	0.007	0.002	0.000
32000.-	34000.	15.	0.005	0.001	0.000
34000.-	36000.	4.	0.001	0.000	0.000
36000.-	38000.	2.	0.000	0.	0.
38000.-	40000.	0.	0.	0.	0.
40000.-	42000.	0.	0.	0.	0.
42000.-	44000.	0.	0.	0.	0.
44000.-	46000.	0.	0.	0.	0.
46000.-	48000.	0.	0.	0.	0.
48000.-	50000.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

JANUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	117.	99.	36.	32.	17.
8000.	115.	99.	37.	32.	14.
10000.	115.	95.	34.	30.	14.
12000.	115.	89.	32.	28.	6.
14000.	114.	85.	29.	26.	2.
16000.	112.	80.	29.	27.	3.
18000.	113.	79.	29.	26.	4.
20000.	111.	69.	28.	26.	2.
22000.	111.	78.	28.	26.	2.
24000.	107.	60.	27.	26.	2.
26000.	102.	60.	25.	25.	2.
28000.	78.	58.	23.	22.	2.
30000.	54.	52.	17.	15.	0.
32000.	28.	40.	10.	8.	0.
34000.	10.	22.	7.	5.	0.
36000.	3.	3.	3.	3.	2.
38000.	0.	0.	0.	0.	0.
40000.	0.	0.	0.	0.	0.
42000.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

FEBRUARY

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	112.	77.	33.	33.	13.
8000.	112.	98.	35.	31.	12.
10000.	112.	99.	35.	31.	4.
12000.	111.	93.	31.	28.	4.
14000.	109.	91.	29.	25.	5.
16000.	108.	71.	26.	24.	6.
18000.	107.	71.	27.	24.	9.
20000.	107.	82.	28.	25.	7.
22000.	106.	87.	29.	25.	5.
24000.	104.	69.	29.	25.	1.
26000.	98.	65.	27.	25.	1.
28000.	84.	56.	22.	21.	2.
30000.	51.	46.	15.	14.	1.
32000.	21.	29.	10.	10.	1.
34000.	6.	20.	7.	5.	1.
36000.	2.	12.	7.	2.	1.
38000.	1.	4.	4.	4.	4.
40000.	0.	0.	0.	0.	0.
42000.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

MARCH

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	161.	86.	30.	28.	13.
8000.	161.	99.	32.	29.	15.
10000.	160.	99.	33.	30.	11.
12000.	159.	81.	32.	30.	13.
14000.	159.	96.	31.	28.	10.
16000.	159.	83.	30.	27.	9.
18000.	158.	74.	30.	29.	4.
20000.	155.	69.	30.	27.	4.
22000.	153.	69.	30.	26.	1.
24000.	152.	69.	30.	26.	10.
26000.	142.	74.	30.	27.	4.
28000.	123.	59.	26.	26.	3.
30000.	96.	52.	22.	19.	1.
32000.	62.	43.	15.	13.	1.
34000.	32.	24.	11.	11.	1.
36000.	15.	15.	7.	7.	2.
38000.	5.	46.	12.	4.	1.
40000.	0.	0.	0.	0.	0.
42000.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	132.	79.	26.	26.	10.
8000.	137.	68.	30.	29.	3.
10000.	136.	94.	31.	30.	11.
12000.	136.	98.	31.	30.	9.
14000.	137.	83.	29.	26.	9.
16000.	133.	99.	30.	25.	1.
18000.	135.	92.	29.	24.	3.
20000.	133.	88.	30.	24.	7.
22000.	132.	98.	31.	23.	1.
24000.	130.	99.	31.	25.	5.
26000.	128.	98.	30.	25.	2.
28000.	127.	90.	29.	25.	1.
30000.	117.	61.	24.	21.	1.
32000.	87.	49.	17.	14.	1.
34000.	50.	31.	11.	10.	1.
36000.	21.	25.	7.	5.	1.
38000.	6.	19.	6.	3.	1.
40000.	1.	13.	13.	13.	13.
42000.	7.	7.	7.	7.	7.
44000.	1.	1.	1.	1.	1.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM	MAY
6000.	125.	74.	31.	29.	9.	
8000.	126.	86.	32.	32.	10.	
10000.	125.	84.	34.	35.	10.	
12000.	125.	84.	35.	37.	10.	
14000.	124.	98.	36.	37.	7.	
16000.	120.	98.	38.	35.	3.	
18000.	120.	98.	36.	34.	3.	
20000.	120.	99.	37.	29.	2.	
22000.	121.	99.	31.	28.	8.	
24000.	120.	99.	32.	29.	8.	
26000.	120.	85.	31.	28.	2.	
28000.	120.	82.	30.	29.	8.	
30000.	119.	78.	27.	26.	5.	
32000.	108.	74.	20.	17.	3.	
34000.	70.	45.	12.	10.	1.	
36000.	32.	21.	6.	3.	1.	
38000.	9.	6.	0.	0.	0.	
40000.	0.	0.	0.	0.	0.	
42000.	0.	0.	0.	0.	0.	
44000.	0.	0.	0.	0.	0.	
46000.	0.	0.	0.	0.	0.	
48000.	0.	0.	0.	0.	0.	
50000.	0.	0.	0.	0.	0.	

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JUNE			MEDIAN	MINIMUM
		MAXIMUM	MEAN	90%		
6000.	128.	85.	34.	32.		
8000.	123.	99.	35.	34.		
10000.	128.	99.	37.	35.		
12000.	128.	94.	39.	37.		
14000.	127.	99.	41.	41.		
16000.	126.	99.	42.	42.		
18000.	124.	99.	39.	37.		
20000.	122.	99.	34.	32.		
22000.	122.	99.	31.	29.		
24000.	122.	65.	29.	27.		
26000.	119.	75.	30.	29.		
28000.	117.	87.	29.	29.		
30000.	109.	80.	29.	29.		
32000.	98.	61.	27.	26.		
34000.	89.	55.	19.	17.		
36000.	52.	38.	13.	11.		
38000.	28.	23.	8.	8.		
40000.	12.	11.	4.	3.		
42000.	1.	6.	6.	6.		
44000.	0.	0.	0.	0.		
46000.	0.	0.	0.	0.		
48000.	0.	0.	0.	0.		
50000.	0.	0.	0.	0.		

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JULY			MINIMUM
		MAXIMUM	MEAN	MEDIAN	
6000.	150.	80.	47.	46.	21.
8000.	150.	86.	50.	49.	27.
10000.	150.	87.	53.	52.	27.
12000.	150.	96.	57.	55.	15.
14000.	150.	99.	59.	59.	10.
16000.	149.	99.	61.	61.	16.
18000.	148.	99.	59.	60.	16.
20000.	147.	99.	55.	55.	3.
22000.	146.	98.	47.	45.	10.
24000.	146.	92.	41.	39.	8.
26000.	144.	98.	37.	36.	8.
28000.	142.	72.	36.	35.	1.
30000.	142.	67.	33.	34.	1.
32000.	136.	73.	33.	33.	1.
34000.	134.	60.	31.	32.	5.
36000.	121.	49.	22.	23.	1.
38000.	86.	31.	13.	13.	1.
40000.	46.	18.	8.	8.	1.
42000.	14.	12.	5.	5.	1.
44000.	3.	6.	4.	5.	1.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

AUGUST

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	157.	87.	49.	50.	16.
8000.	157.	99.	52.	53.	4.
10000.	157.	96.	55.	54.	25.
12000.	157.	99.	57.	56.	24.
14000.	157.	99.	58.	56.	10.
16000.	156.	99.	59.	59.	10.
18000.	156.	99.	58.	59.	10.
20000.	156.	99.	50.	48.	10.
22000.	154.	99.	41.	38.	10.
24000.	154.	99.	37.	36.	4.
26000.	154.	93.	37.	36.	1.
28000.	150.	92.	35.	35.	6.
30000.	148.	95.	34.	34.	10.
32000.	148.	71.	33.	34.	3.
34000.	135.	67.	29.	31.	2.
36000.	93.	53.	19.	18.	1.
38000.	56.	37.	12.	13.	1.
40000.	24.	21.	8.	8.	2.
42000.	5.	5.	4.	5.	4.
44000.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SEPTEMBER			MINIMUM
		MAXIMUM	MEAN	MEDIAN	
6000.	122.	99.	52.	51.	18.
8000.	123.	99.	54.	53.	25.
10000.	123.	99.	56.	55.	29.
12000.	122.	99.	55.	55.	7.
14000.	122.	99.	54.	54.	9.
16000.	122.	99.	51.	50.	2.
18000.	118.	95.	44.	40.	10.
20000.	118.	92.	38.	33.	1.
22000.	116.	99.	36.	32.	3.
24000.	116.	92.	33.	31.	2.
26000.	117.	80.	33.	31.	6.
28000.	117.	74.	33.	31.	9.
30000.	117.	83.	34.	32.	7.
32000.	112.	76.	31.	31.	2.
34000.	89.	70.	24.	22.	1.
36000.	50.	46.	15.	14.	1.
38000.	22.	27.	12.	9.	1.
40000.	9.	13.	5.	4.	1.
42000.	1.	7.	7.	7.	7.
44000.	1.	2.	2.	2.	2.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM	
					OCTOBER	18°
6000.	145.	89.	40.	37.	36.	17°
8000.	145.	95.	42.	42.	37.	12°
10000.	145.	99.	42.	39.	35.	5°
12000.	145.	98.	39.	34.	31.	5°
14000.	139.	94.	34.	29.	29.	1°
16000.	136.	78.	29.	27.	27.	1°
18000.	130.	67.	28.	27.	27.	1°
20000.	126.	64.	27.	27.	27.	8°
22000.	125.	78.	28.	28.	28.	3°
24000.	125.	93.	29.	29.	29.	3°
26000.	125.	92.	30.	29.	29.	1°
28000.	123.	63.	31.	30.	30.	10°
30000.	121.	65.	30.	30.	30.	3°
32000.	110.	61.	22.	22.	22.	1°
34000.	76.	46.	15.	12.	12.	1°
36000.	35.	25.	11.	9.	9.	1°
38000.	12.	16.	9.	6.	6.	2°
40000.	5.	9.	6.	7.	7.	1°
42000.	2.	2.	2.	2.	2.	1°
44000.	0.	0.	0.	0.	0.	0°
46000.	0.	0.	0.	0.	0.	0°
48000.	0.	0.	0.	0.	0.	0°
50000.	0.	0.	0.	0.	0.	0°

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

NOVEMBER

GEOMETRIC ALTITUDE MSL. FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	159.	99.	40.	38.	18.
8000.	159.	99.	41.	38.	13.
10000.	157.	99.	39.	35.	10.
12000.	156.	99.	36.	31.	10.
14000.	155.	99.	34.	30.	7.
16000.	150.	99.	33.	28.	8.
18000.	153.	91.	32.	28.	1.
20000.	152.	99.	34.	28.	9.
22000.	154.	99.	34.	29.	1.
24000.	153.	99.	36.	31.	6.
26000.	151.	98.	36.	32.	2.
28000.	143.	90.	36.	31.	2.
30000.	132.	85.	33.	30.	2.
32000.	105.	73.	24.	22.	2.
34000.	72.	72.	17.	15.	1.
36000.	30.	32.	12.	10.	1.
38000.	14.	24.	9.	5.	1.
40000.	3.	17.	10.	9.	4.
42000.	1.	11.	11.	11.	11.
44000.	1.	5.	5.	5.	5.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

**MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY MONTHS**

JAILLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

DECEMBER

GEOMETRIC ALTITUDE HSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM
6000.	147.	98.	45.	43.	17.
8000.	148.	99.	45.	40.	13.
10000.	148.	99.	42.	35.	5.
12000.	145.	99.	37.	29.	1.
14000.	143.	99.	35.	29.	3.
16000.	139.	91.	30.	26.	2.
18000.	137.	93.	29.	27.	1.
20000.	133.	95.	31.	29.	1.
22000.	129.	94.	32.	29.	0.
24000.	128.	98.	32.	28.	0.
26000.	127.	84.	30.	28.	0.
28000.	118.	72.	28.	26.	0.
30000.	94.	60.	22.	19.	0.
32000.	49.	63.	15.	13.	0.
34000.	15.	27.	10.	9.	0.
36000.	4.	10.	6.	6.	0.
38000.	2.	3.	2.	2.	0.
40000.	0.	0.	0.	0.	0.
42000.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JALI)

PERIOD OF RECORD 1962-1967

JANUARY

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)									
		≤ 10	< 20	< 30	< 40	< 50	< 60	< 70	< 80	< 90	≤ 100
6000.	117.	0.	1.	36.	43.	9.	3.	3.	0.	3.	0.
8000.	115.	0.	2.	37.	37.	13.	3.	3.	0.	1.	3.
10000.	115.	0.	9.	42.	27.	10.	6.	2.	1.	2.	0.
12000.	115.	2.	14.	38.	24.	10.	2.	6.	2.	0.	0.
14000.	114.	4.	12.	47.	19.	10.	2.	4.	1.	1.	0.
16000.	112.	2.	13.	43.	25.	8.	4.	4.	0.	0.	0.
18000.	113.	2.	15.	49.	21.	6.	4.	1.	2.	0.	0.
20000.	111.	2.	12.	55.	17.	3.	0.	3.	0.	0.	0.
22000.	111.	3.	12.	54.	23.	5.	2.	2.	1.	0.	0.
24000.	107.	3.	12.	57.	17.	7.	4.	1.	0.	0.	0.
26000.	102.	6.	24.	43.	18.	5.	4.	4.	1.	0.	0.
28000.	78.	14.	23.	41.	12.	8.	3.	0.	0.	0.	0.
30000.	54.	35.	26.	26.	11.	0.	2.	0.	0.	0.	0.
32000.	28.	54.	39.	4.	0.	0.	0.	0.	0.	0.	0.
34000.	10.	70.	20.	10.	0.	0.	0.	0.	0.	0.	0.
36000.	3.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

FEBRUARY

RELATIVE HUMIDITY (IN PER CENT)

GEOMETRIC ALTITUDE
MSL FEET

	TOTAL OBSERVATIONS	< 10	≥ 10 - < 20	≥ 20 - < 30	≥ 30 - < 40	≥ 40 - < 50	≥ 50 - < 60	≥ 60 - < 70	≥ 70 - < 80	≥ 80 - < 90	≥ 90 - ≤ 100
6000.	112.	0.	4.	37.	34.	15.	6.	0.	1.	1.	0.
8000.	112.	0.	5.	43.	18.	19.	10.	3.	5.	1.	1.
10000.	112.	1.	16.	29.	25.	12.	7.	3.	3.	0.	1.
12000.	111.	1.	26.	30.	19.	8.	5.	8.	3.	1.	0.
14000.	109.	1.	26.	35.	23.	6.	6.	2.	2.	0.	0.
16000.	108.	1.	34.	37.	19.	3.	2.	2.	2.	0.	0.
18000.	107.	1.	30.	38.	17.	7.	1.	4.	4.	0.	0.
20000.	107.	1.	20.	44.	25.	1.	4.	4.	4.	0.	0.
22000.	105.	2.	18.	41.	23.	5.	8.	0.	0.	0.	0.
24000.	104.	2.	17.	47.	12.	10.	9.	4.	4.	0.	0.
26000.	98.	3.	21.	44.	16.	9.	4.	2.	2.	0.	0.
28000.	84.	19.	29.	27.	12.	11.	2.	0.	0.	0.	0.
30000.	51.	35.	35.	18.	8.	4.	0.	0.	0.	0.	0.
32000.	21.	52.	38.	10.	0.	0.	0.	0.	0.	0.	0.
34000.	6.	67.	17.	17.	0.	0.	0.	0.	0.	0.	0.
36000.	2.	50.	50.	0.	0.	0.	0.	0.	0.	0.	0.
38000.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

MARCH

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100
6000.	161.	0.	13.	45.	26.	9.	4.	1.	1.	1.	0.
8000.	161.	0.	1.	41.	26.	14.	4.	1.	1.	1.	0.
10000.	160.	0.	9.	40.	27.	12.	5.	4.	3.	3.	0.
12000.	159.	0.	18.	33.	24.	12.	7.	3.	2.	2.	0.
14000.	159.	0.	21.	33.	24.	13.	4.	3.	3.	3.	0.
16000.	159.	1.	23.	33.	23.	8.	7.	3.	3.	3.	0.
18000.	158.	1.	23.	31.	26.	11.	4.	3.	3.	2.	0.
20000.	155.	1.	16.	37.	25.	11.	7.	2.	2.	2.	0.
22000.	153.	1.	10.	48.	23.	8.	7.	3.	3.	3.	0.
24000.	152.	0.	13.	48.	18.	9.	8.	1.	1.	1.	0.
26000.	142.	2.	14.	44.	15.	12.	11.	0.	0.	0.	0.
28000.	123.	11.	14.	38.	15.	13.	9.	0.	0.	0.	0.
30000.	96.	18.	35.	18.	15.	11.	3.	0.	0.	0.	0.
32000.	62.	40.	26.	19.	13.	2.	0.	0.	0.	0.	0.
34000.	32.	44.	44.	13.	0.	0.	0.	0.	0.	0.	0.
36000.	15.	73.	27.	0.	0.	0.	0.	0.	0.	0.	0.
38000.	5.	80.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (IN PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100
6000.	139.	0.	26.	39.	20.	9.	4.	4.	1.	0.	0.
8000.	137.	1.	17.	35.	30.	10.	4.	4.	1.	0.	0.
10000.	136.	0.	15.	35.	29.	15.	4.	4.	1.	0.	0.
12000.	136.	1.	18.	32.	26.	15.	4.	4.	1.	0.	0.
14000.	135.	1.	28.	29.	19.	13.	6.	6.	1.	0.	0.
16000.	133.	1.	33.	29.	14.	11.	5.	5.	1.	0.	0.
18000.	125.	2.	28.	36.	13.	7.	7.	3.	1.	0.	0.
20000.	133.	1.	29.	32.	13.	11.	8.	4.	2.	0.	0.
22000.	132.	2.	27.	36.	11.	11.	4.	4.	2.	0.	0.
24000.	130.	1.	22.	42.	15.	9.	3.	6.	1.	0.	0.
26000.	128.	1.	17.	48.	16.	7.	5.	5.	1.	0.	0.
28000.	127.	3.	21.	40.	16.	9.	8.	4.	2.	0.	0.
30000.	117.	13.	32.	23.	15.	11.	0.	0.	0.	0.	0.
32000.	87.	31.	38.	11.	17.	2.	0.	0.	0.	0.	0.
34000.	50.	50.	36.	12.	2.	0.	0.	0.	0.	0.	0.
36000.	21.	67.	23.	5.	0.	0.	0.	0.	0.	0.	0.
38000.	6.	83.	17.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	1.	0.	100.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	1.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JALI)

PERIOD OF RECORD 1962-1967

MAY

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBservATIONS	RELATIVE HUMIDITY (PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100
6000.	125.	1.	30.	23.	17.	18.	10.	0.	0.	0.	0.
8000.	126.	0.	23.	24.	27.	11.	13.	1.	1.	0.	0.
10000.	125.	0.	18.	21.	27.	22.	10.	2.	1.	0.	0.
12000.	125.	0.	14.	24.	21.	30.	10.	1.	1.	1.	1.
14000.	124.	2.	15.	16.	22.	25.	13.	6.	0.	0.	2.
16000.	120.	2.	17.	17.	23.	14.	12.	2.	2.	2.	2.
18000.	120.	2.	16.	25.	24.	11.	7.	6.	2.	2.	2.
20000.	120.	2.	19.	32.	22.	9.	3.	5.	2.	0.	0.
22000.	121.	2.	21.	35.	21.	7.	5.	2.	0.	0.	0.
24000.	120.	1.	18.	34.	22.	11.	7.	2.	0.	0.	0.
26000.	120.	2.	19.	32.	22.	14.	8.	1.	0.	0.	0.
28000.	120.	1.	20.	30.	24.	18.	5.	0.	0.	0.	0.
30000.	119.	3.	29.	27.	24.	12.	4.	0.	0.	0.	0.
32000.	108.	18.	43.	20.	8.	6.	5.	0.	0.	0.	0.
34000.	70.	51.	30.	10.	7.	1.	0.	0.	0.	0.	0.
36000.	32.	78.	16.	6.	0.	0.	0.	0.	0.	0.	0.
38000.	100.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	42000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JAILLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

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RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	< 10	< 20	< 30	< 40	< 50	< 60	< 70	< 80	< 90	< 100
6000.	128.	1.	17.	26.	24.	14.	12.	1.	2.	0.	0.
8000.	128.	1.	12.	23.	29.	20.	9.	0.	2.	2.	0.
10000.	128.	1.	10.	23.	27.	22.	8.	0.	2.	2.	0.
12000.	128.	1.	9.	19.	14.	27.	10.	0.	2.	2.	0.
14000.	127.	1.	10.	14.	22.	27.	13.	0.	2.	2.	0.
16000.	126.	1.	16.	12.	17.	21.	17.	0.	2.	2.	0.
18000.	124.	1.	21.	21.	13.	18.	12.	0.	2.	2.	0.
20000.	122.	2.	20.	25.	22.	17.	6.	0.	2.	2.	0.
22000.	122.	3.	20.	30.	24.	13.	5.	0.	2.	2.	0.
24000.	122.	2.	16.	39.	25.	10.	5.	0.	2.	2.	0.
26000.	119.	2.	13.	40.	26.	10.	4.	0.	2.	2.	0.
28000.	117.	3.	13.	41.	27.	11.	3.	0.	2.	2.	0.
30000.	109.	3.	12.	41.	32.	6.	0.	0.	2.	2.	0.
32000.	98.	3.	21.	40.	28.	4.	0.	0.	2.	2.	0.
34000.	89.	22.	38.	24.	9.	6.	0.	0.	2.	2.	0.
36000.	52.	44.	40.	10.	0.	0.	0.	0.	2.	2.	0.
38000.	28.	61.	32.	7.	0.	0.	0.	0.	2.	2.	0.
40000.	12.	83.	17.	0.	0.	0.	0.	0.	2.	2.	0.
42000.	1.	100.	0.	0.	0.	0.	0.	0.	2.	2.	0.
44000.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

JULY

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100
6000.	150.	0.	0.	4.	19.	43.	19.	11.	3.	1.	0.
8000.	150.	0.	0.	2.	11.	43.	27.	11.	5.	1.	0.
10000.	150.	0.	0.	1.	6.	33.	33.	21.	4.	2.	0.
12000.	150.	0.	1.	0.	5.	23.	34.	19.	4.	1.	5.
14000.	150.	0.	1.	3.	5.	14.	33.	23.	13.	4.	5.
149.	149.	0.	1.	2.	6.	13.	26.	26.	14.	8.	4.
148.	148.	0.	2.	3.	11.	15.	19.	22.	14.	6.	8.
147.	147.	1.	3.	6.	12.	20.	16.	17.	14.	5.	4.
146.	146.	0.	4.	14.	22.	18.	16.	13.	6.	3.	1.
22000.	146.	0.	6.	25.	23.	16.	16.	10.	2.	0.	0.
24000.	144.	1.	6.	28.	26.	17.	13.	6.	1.	0.	0.
26000.	142.	2.	6.	26.	32.	19.	11.	4.	1.	0.	0.
28000.	142.	4.	4.	29.	40.	17.	4.	2.	0.	0.	0.
30000.	136.	2.	6.	24.	49.	13.	4.	1.	0.	0.	0.
32000.	134.	1.	7.	33.	44.	10.	3.	1.	0.	0.	0.
34000.	121.	12.	45.	13.	7.	0.	0.	0.	0.	0.	0.
36000.	86.	30.	51.	17.	1.	0.	0.	0.	0.	0.	0.
38000.	46.	65.	35.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	14.	86.	14.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	3.	106.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

AUGUST

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE M.S.L. FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)							
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80
6000.	157.	0.	3.	15.	27.	33.	15.	3.	1.
8000.	157.	1.	5.	10.	23.	38.	15.	6.	1.
10000.	157.	0.	0.	4.	7.	24.	31.	19.	11.
12000.	157.	0.	0.	2.	10.	18.	32.	15.	13.
14000.	157.	0.	1.	2.	7.	18.	32.	17.	11.
156.	156.	0.	1.	5.	6.	15.	24.	22.	13.
156.	156.	0.	3.	5.	12.	11.	20.	21.	15.
156.	156.	0.	7.	9.	17.	22.	15.	10.	6.
154.	154.	0.	12.	16.	29.	16.	12.	5.	3.
154.	154.	1.	18.	12.	32.	20.	7.	3.	2.
154.	154.	1.	15.	16.	31.	19.	12.	1.	2.
150.	150.	1.	14.	23.	30.	17.	7.	2.	1.
148.	148.	0.	12.	23.	36.	18.	5.	1.	1.
148.	148.	5.	9.	20.	44.	14.	3.	5.	3.
135.	135.	10.	13.	23.	34.	16.	3.	2.	0.
93.	93.	20.	32.	27.	15.	4.	1.	0.	0.
56.	56.	37.	46.	12.	4.	0.	0.	0.	0.
24.	24.	71.	25.	4.	0.	0.	0.	0.	0.
5.	5.	100.	0.	0.	0.	0.	0.	0.	0.
44000.	44000.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	46000.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	48000.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	50000.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL.)

PERIOD OF RECORD 1962-1967

SEPTEMBER

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)							
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80
6000.	122.	0.	1.	2.	16.	25.	30.	16.	4.
8000.	123.	0.	0.	1.	12.	26.	32.	15.	8.
10000.	123.	0.	0.	1.	8.	28.	33.	15.	9.
12000.	122.	1.	2.	2.	7.	22.	34.	18.	7.
14000.	122.	1.	2.	3.	11.	20.	27.	19.	9.
16000.	122.	2.	3.	10.	14.	20.	19.	13.	8.
18000.	118.	0.	8.	21.	21.	18.	10.	6.	8.
20000.	118.	3.	8.	31.	25.	9.	8.	7.	5.
22000.	116.	1.	14.	28.	28.	9.	7.	7.	4.
24000.	116.	2.	15.	31.	29.	8.	7.	3.	2.
26000.	117.	1.	12.	34.	30.	10.	6.	2.	1.
28000.	117.	1.	12.	33.	32.	6.	8.	5.	3.
30000.	117.	1.	10.	30.	35.	10.	8.	3.	1.
32000.	112.	4.	12.	26.	34.	16.	3.	4.	0.
34000.	89.	17.	27.	25.	17.	10.	1.	2.	0.
36000.	50.	38.	30.	22.	2.	8.	0.	0.	0.
38000.	22.	59.	23.	18.	0.	0.	0.	0.	0.
40000.	9.	78.	22.	0.	0.	0.	0.	0.	0.
42000.	1.	100.	0.	0.	0.	0.	0.	0.	0.
44000.	1.	100.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

OCTOBER

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100
6000.	145.	0.	1.	12.	49.	21.	8.	3.	1.	4.	0.
8000.	145.	0.	1.	15.	45.	17.	10.	6.	3.	2.	3.
10000.	145.	0.	3.	15.	45.	12.	6.	7.	6.	1.	4.
12000.	145.	2.	8.	21.	33.	14.	7.	3.	5.	4.	2.
14000.	139.	4.	12.	32.	27.	11.	4.	7.	2.	1.	1.
16000.	136.	5.	12.	40.	27.	7.	5.	1.	2.	0.	0.
18000.	130.	3.	17.	45.	23.	6.	2.	0.	0.	0.	0.
20000.	126.	1.	16.	48.	29.	5.	2.	1.	0.	0.	0.
22000.	125.	3.	13.	45.	29.	7.	2.	0.	0.	0.	0.
24000.	125.	3.	8.	47.	30.	8.	0.	1.	1.	0.	0.
26000.	125.	3.	8.	42.	35.	6.	3.	2.	0.	0.	1.
28000.	123.	0.	7.	45.	34.	7.	6.	2.	0.	0.	0.
30000.	121.	2.	7.	43.	37.	5.	4.	2.	2.	0.	0.
32000.	110.	15.	29.	32.	19.	3.	1.	1.	1.	0.	0.
34000.	76.	39.	30.	20.	8.	3.	0.	0.	0.	0.	0.
36000.	35.	54.	23.	23.	0.	0.	0.	0.	0.	0.	0.
38000.	12.	58.	42.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	5.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	2.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

NOVEMBER

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100
6000.	159.	0.	1.	13.	47.	21.	9.	1.	3.	1.	2.
8000.	159.	0.	5.	18.	35.	19.	3.	4.	4.	3.	3.
10000.	157.	0.	9.	24.	32.	13.	9.	4.	4.	3.	3.
12000.	156.	0.	16.	31.	24.	12.	4.	2.	3.	1.	6.
14000.	155.	1.	16.	35.	24.	10.	4.	3.	1.	2.	5.
16000.	150.	1.	16.	41.	19.	7.	3.	1.	2.	3.	3.
18000.	153.	2.	14.	39.	24.	8.	7.	1.	3.	1.	2.
20000.	152.	1.	11.	46.	16.	11.	5.	3.	3.	1.	1.
22000.	154.	1.	9.	42.	24.	7.	6.	1.	4.	3.	2.
24000.	153.	2.	7.	37.	27.	8.	6.	2.	6.	1.	3.
26000.	151.	2.	7.	34.	30.	8.	6.	2.	5.	1.	3.
28000.	143.	1.	6.	36.	27.	12.	8.	6.	2.	2.	1.
30000.	132.	2.	14.	35.	24.	11.	8.	4.	2.	1.	0.
32000.	109.	17.	28.	23.	15.	6.	6.	1.	1.	0.	0.
34000.	72.	33.	32.	17.	11.	6.	0.	0.	0.	0.	0.
36000.	30.	47.	33.	10.	10.	0.	0.	0.	0.	0.	0.
38000.	14.	64.	29.	7.	0.	0.	0.	0.	0.	0.	0.
40000.	3.	67.	33.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	1.	0.	100.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	1.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

DECEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)								
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90
6000.	147.	0.	1.	20.	24.	22.	18.	5.	2.	3.
8000.	148.	0.	5.	20.	26.	15.	13.	7.	5.	3.
10000.	148.	3.	19.	19.	16.	9.	5.	8.	4.	8.
12000.	145.	4.	23.	23.	16.	9.	4.	4.	5.	6.
14000.	143.	3.	26.	23.	21.	8.	4.	3.	4.	4.
16000.	139.	4.	26.	33.	14.	10.	6.	2.	2.	1.
18000.	137.	3.	22.	39.	18.	11.	3.	1.	0.	1.
20000.	133.	2.	17.	40.	21.	13.	3.	2.	2.	1.
22000.	129.	2.	13.	41.	20.	13.	5.	2.	2.	1.
24000.	128.	2.	13.	40.	22.	13.	4.	2.	2.	1.
26000.	127.	5.	14.	43.	19.	10.	5.	2.	2.	0.
28000.	118.	7.	19.	36.	22.	9.	6.	0.	0.	0.
30000.	94.	20.	34.	18.	13.	7.	6.	1.	0.	0.
32000.	49.	45.	29.	16.	6.	2.	0.	0.	0.	0.
34000.	15.	60.	33.	7.	0.	0.	0.	0.	0.	0.
36000.	4.	75.	25.	0.	0.	0.	0.	0.	0.	0.
38000.	2.	100.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
BY SEASONS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

WINTER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM		MEAN	MINIMUM
6000-	375-	6.779	2.590	0.643	0.643
8000-	374-	6.354	2.200	0.532	0.532
10000-	376-	5.725	1.744	0.178	0.178
12000-	372-	5.140	1.355	0.029	0.029
14000-	367-	4.138	1.040	0.083	0.083
16000-	360-	3.413	0.792	0.084	0.084
18000-	358-	3.226	0.603	0.025	0.025
20000-	352-	2.693	0.469	0.030	0.030
22000-	347-	2.178	0.350	0.009	0.009
24000-	340-	1.534	0.255	0.004	0.004
26000-	328-	1.570	0.175	0.001	0.001
28000-	281-	0.459	0.114	0.005	0.005
30000-	199-	0.304	0.067	0.002	0.002
32000-	98-	0.294	0.032	0.001	0.001
34000-	31-	0.078	0.015	0.001	0.001
36000-	9-	0.016	0.006	0.001	0.001
38000-	3-	0.003	0.002	0.001	0.001
40000-	0-	0-	0-	0-	0-
42000-	0-	0-	0-	0-	0-
44000-	0-	0-	0-	0-	0-
46000-	0-	0-	0-	0-	0-
48000-	0-	0-	0-	0-	0-
50000-	0-	0-	0-	0-	0-

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SPRING		
		MAXIMUM	MEAN	MINIMUM
6000.	425.	11.348	3.402	0.535
8000.	424.	8.474	2.867	0.236
10000.	421.	6.513	2.340	0.277
12000.	420.	6.457	1.847	0.375
14000.	418.	6.099	1.437	0.175
16000.	412.	5.233	1.132	0.030
18000.	413.	4.464	0.846	0.082
20000.	408.	3.857	0.635	0.046
22000.	406.	3.339	0.474	0.008
24000.	402.	2.875	0.356	0.023
26000.	390.	1.512	0.253	0.004
28000.	370.	1.091	0.174	0.003
30000.	332.	0.657	0.109	0.002
32000.	257.	0.383	0.058	0.001
34000.	152.	0.214	0.026	0.001
36000.	68.	0.046	0.009	0.001
38000.	20.	0.030	0.005	0.000
40000.	1.	0.018	0.018	0.018
42000.	1.	0.008	0.008	0.008
44000.	1.	0.001	0.001	0.001
46000.	0.	0.	0.	0.
48000.	0.	0.	0.	0.
50000.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SUMMER		MEAN	MINIMUM
		MAXIMUM	MINIMUM		
6000.	434-	14.642	8.609	1.326	0.570
8000.	430-	11.772	7.413	0.121	0.121
10000.	433-	9.879	6.267	0.137	0.137
12000.	433-	9.393	5.219	0.415	0.415
14000.	432-	8.404	4.249	0.448	0.448
16000.	429-	6.152	3.417	0.103	0.103
18000.	424-	5.399	2.632	0.052	0.052
20000.	422-	4.302	1.900	0.087	0.087
22000.	420-	3.351	1.323	0.043	0.043
24000.	420-	2.628	0.928	0.017	0.017
26000.	415-	2.068	0.687	0.008	0.008
28000.	407-	1.444	0.485	0.005	0.005
30000.	399-	1.012	0.339	0.006	0.006
32000.	380-	0.680	0.233	0.003	0.003
34000.	356-	0.436	0.145	0.002	0.002
36000.	265-	0.266	0.074	0.001	0.001
38000.	170-	0.121	0.031	0.001	0.001
40000.	82-	0.043	0.012	0.001	0.001
42000.	20-	0.016	0.005	0.001	0.001
44000.	3-	0.005	0-	0-	0-
46000.	0-	0-	0-	0-	0-
48000.	0-	0-	0-	0-	0-
50000.	0-	0-	0-	0-	0-

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
BY SEASONS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MINIMUM	
				FALL	SPRING
6000.	423.	12.021	5.490	1.727	0.814
8000.	426.	11.013	4.733	0.630	0.630
10000.	425.	9.568	3.918	0.275	0.275
12000.	422.	8.408	3.038	0.279	0.279
14000.	415.	6.645	1.317	0.648	0.648
16000.	407.	5.621	1.772	0.312	0.312
18000.	400.	4.806	1.312	0.314	0.314
20000.	396.	3.518	1.214	0.342	0.342
22000.	395.	2.854	0.769	0.115	0.115
24000.	394.	2.382	0.575	0.052	0.052
26000.	393.	1.812	0.423	0.012	0.012
28000.	383.	1.286	0.305	0.018	0.018
30000.	369.	0.918	0.213	0.009	0.009
32000.	331.	0.568	0.130	0.002	0.002
34000.	237.	0.377	0.073	0.001	0.001
36000.	115.	0.265	0.038	0.001	0.001
38000.	48.	0.124	0.021	0.001	0.001
40000.	17.	0.025	0.008	0.001	0.001
42000.	4.	0.009	0.004	0.001	0.001
44000.	2.	0.002	0.001	0.001	0.001
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY SEASONS
 JALLEN SITE (JALI)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	WINTER	
		MAXIMUM	MEAN
4051.-	6000.	353.	0.485
6000.-	6000.	373.	0.387
8000.-	10000.	374.	0.332
10000.-	12000.	371.	0.278
12000.-	14000.	367.	0.224
14000.-	16000.	358.	0.165
16000.-	18000.	355.	0.139
18000.-	20000.	352.	0.117
20000.-	22000.	345.	0.089
22000.-	24000.	339.	0.062
24000.-	26000.	326.	0.037
26000.-	28000.	281.	0.026
28000.-	30000.	199.	0.011
30000.-	32000.	98.	0.007
32000.-	34000.	31.	0.005
34000.-	36000.	9.	0.001
36000.-	38000.	2.	0.000
38000.-	40000.	0.	0.
40000.-	42000.	0.	0.
42000.-	44000.	0.	0.
44000.-	46000.	0.	0.
46000.-	48000.	0.	0.
48000.-	50000.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SPRING		MEAN	MINIMUM
		MAXIMUM	MEAN		
4051.-	6000.	414.	0.678	0.222	0.063
6000.-	6000.	421.	0.556	0.180	0.029
6000.-	10000.	421.	0.359	0.141	0.020
10000.-	12000.	419.	0.312	0.107	0.018
12000.-	14000.	417.	0.300	0.079	0.017
14000.-	16000.	410.	0.254	0.058	0.007
16000.-	18000.	410.	0.202	0.042	0.005
18000.-	20000.	407.	0.162	0.030	0.003
20000.-	22000.	405.	0.132	0.021	0.001
22000.-	24000.	399.	0.106	0.015	0.001
24000.-	26000.	389.	0.071	0.010	0.001
26000.-	28000.	369.	0.040	0.007	0.001
28000.-	30000.	332.	0.025	0.004	0.001
30000.-	32000.	257.	0.014	0.003	0.000
32000.-	34000.	152.	0.007	0.001	0.000
34000.-	36000.	68.	0.002	0.001	0.000
36000.-	38000.	20.	0.001	0.000	0.000
38000.-	40000.	1.	0.000	0.000	0.000
40000.-	42000.	1.	0.000	0.000	0.000
42000.-	44000.	1.	0.000	0.000	0.000
44000.-	46000.	0.	0.	0.	0.
46000.-	48000.	0.	0.	0.	0.
48000.-	50000.	0.	0.	0.	0.

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SUMMER		MINIMUM
		MAXIMUM	MEAN	
4051.-	6000.	430.-	0.898	0.094
6000.-	8000.-	430.-	0.722	0.053
8000.-	10000.-	430.-	0.559	0.018
10000.-	12000.-	433.-	0.473	0.068
12000.-	14000.-	432.-	0.398	0.014
14000.-	16000.-	428.-	0.321	0.023
16000.-	18000.-	423.-	0.238	0.012
18000.-	20000.-	421.-	0.188	0.015
20000.-	22000.-	418.-	0.138	0.004
22000.-	24000.-	419.-	0.101	0.003
24000.-	26000.-	414.-	0.072	0.002
26000.-	28000.-	404.-	0.051	0.003
28000.-	30000.-	397.-	0.034	0.001
30000.-	32000.-	377.-	0.022	0.001
32000.-	34000.-	356.-	0.014	0.001
34000.-	36000.-	264.-	0.008	0.000
36000.-	38000.-	170.-	0.004	0.000
38000.-	40000.-	82.-	0.002	0.001
40000.-	42000.-	20.-	0.001	0.000
42000.-	44000.-	3.-	0.000	0.000
44000.-	46000.-	0.-	0.-	0.-
46000.-	48000.-	0.-	0.-	0.-
48000.-	50000.-	0.-	0.-	0.-

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
SELECTED LEVELS BY SEASONS
JALLEN SITE (JAL)
PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	FALL		MINIMUM
		MAXIMUM	MEAN	
4051.- 6000.	422.	0.748	0.355	0.120
6000.- 8000.	422.	0.643	0.293	0.090
8000.- 10000.	424.	0.547	0.234	0.058
10000.- 12000.	422.	0.446	0.177	0.038
12000.- 14000.	413.	0.345	0.129	0.022
14000.- 16000.	407.	0.269	0.092	0.012
16000.- 18000.	397.	0.211	0.066	0.006
18000.- 20000.	389.	0.157	0.046	0.005
20000.- 22000.	389.	0.117	0.033	0.003
22000.- 24000.	392.	0.090	0.023	0.001
24000.- 26000.	388.	0.068	0.016	0.002
26000.- 28000.	382.	0.047	0.011	0.002
28000.- 30000.	369.	0.031	0.007	0.001
30000.- 32000.	328.	0.020	0.005	0.001
32000.- 34000.	237.	0.014	0.003	0.000
34000.- 36000.	115.	0.008	0.002	0.000
36000.- 38000.	48.	0.004	0.001	0.000
38000.- 40000.	17.	0.001	0.000	0.000
40000.- 42000.	4.	0.000	0.000	0.000
42000.- 44000.	2.	0.000	0.000	0.000
44000.- 46000.	0.	0.	0.	0.
46000.- 48000.	0.	0.	0.	0.
48000.- 50000.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)		PERIOD OF RECORD 1962-1967	WINTER	MAXIMUM	MEAN	MEDIAN	MINIMUM
GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS						
6000.	376.	99.	39.	35.	35.	13.	
8000.	375.	99.	39.	34.	34.	12.	
10000.	375.	99.	37.	32.	32.	4.	
12000.	371.	99.	34.	28.	28.	1.	
14000.	366.	99.	31.	27.	27.	2.	
16000.	359.	91.	29.	25.	25.	2.	
18000.	357.	93.	28.	25.	25.	1.	
20000.	351.	95.	29.	26.	26.	2.	
22000.	346.	94.	30.	27.	27.	1.	
24000.	339.	98.	30.	26.	26.	1.	
26000.	327.	84.	27.	25.	25.	1.	
28000.	280.	72.	25.	24.	24.	2.	
30000.	199.	60.	17.	17.	17.	1.	
32000.	98.	63.	12.	11.	11.	1.	
34000.	31.	27.	8.	7.	7.	1.	
36000.	9.	12.	5.	4.	4.	1.	
38000.	3.	4.	3.	3.	3.	1.	
40000.	0.	0.	0.	0.	0.	0.	
42000.	0.	0.	0.	0.	0.	0.	
44000.	0.	0.	0.	0.	0.	0.	
46000.	0.	0.	0.	0.	0.	0.	
48000.	0.	0.	0.	0.	0.	0.	
50000.	0.	0.	0.	0.	0.	0.	

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	MEDIAN	MINIMUM	SPRING
						PERIOD OF RECORD
6000.	425.	88.	30.	28.	9.	
8000.	424.	99.	32.	30.	3.	
10000.	421.	99.	33.	31.	10.	
12000.	420.	98.	33.	31.	9.	
14000.	418.	98.	32.	30.	7.	
16000.	412.	99.	32.	29.	1.	
18000.	413.	98.	31.	28.	3.	
20000.	408.	99.	31.	27.	2.	
22000.	406.	99.	30.	26.	1.	
24000.	402.	99.	31.	26.	5.	
26000.	390.	98.	30.	27.	2.	
28000.	370.	90.	29.	26.	1.	
30000.	332.	78.	25.	23.	1.	
32000.	257.	74.	18.	15.	1.	
34000.	152.	45.	12.	10.	1.	
36000.	68.	25.	7.	6.	1.	
38000.	20.	46.	6.	3.	1.	
40000.	1.	13.	13.	13.	13.	
42000.	1.	7.	7.	7.	7.	
44000.	1.	1.	1.	1.	1.	
45000.	0.	0.	0.	0.	0.	
46000.	0.	0.	0.	0.	0.	
50000.	0.	0.	0.	0.	0.	

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SUMMER			MINIMUM
		MAXIMUM	MEAN	MEDIAN	
6000.	435.	87.	44.	45.	8.
8000.	435.	99.	46.	47.	4.
10000.	435.	99.	49.	50.	1.
12000.	435.	99.	52.	51.	2.
14000.	434.	99.	54.	54.	6.
16000.	431.	99.	55.	55.	8.
18000.	428.	99.	53.	54.	2.
20000.	425.	99.	47.	45.	2.
22000.	422.	99.	40.	37.	3.
24000.	422.	99.	36.	35.	2.
26000.	417.	98.	35.	34.	1.
28000.	409.	92.	33.	33.	1.
30000.	399.	95.	32.	32.	1.
32000.	382.	73.	31.	32.	1.
34000.	358.	67.	27.	29.	1.
36000.	266.	53.	19.	20.	1.
38000.	170.	37.	12.	12.	1.
40000.	82.	21.	7.	7.	1.
42000.	20.	12.	5.	5.	1.
44000.	3.	6.	4.	5.	1.
46000.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.

MEAN, MEDIAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY SEASONS

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	FALL			MEDIAN	MINIMUM
		MAXIMUM	MEAN	44.		
6000.	426.	99.	44.	40.	18.	
8000.	427.	99.	45.	41.	13.	
10000.	425.	99.	45.	41.	10.	
12000.	423.	99.	42.	39.	5.	
14000.	416.	99.	40.	35.	5.	
16000.	408.	99.	37.	32.	1.	
18000.	401.	95.	34.	30.	1.	
20000.	396.	99.	33.	29.	1.	
22000.	395.	99.	33.	30.	1.	
24000.	394.	99.	33.	30.	2.	
26000.	393.	98.	33.	31.	1.	
28000.	383.	90.	33.	31.	2.	
30000.	370.	85.	32.	30.	2.	
32000.	331.	76.	26.	25.	1.	
34000.	237.	72.	19.	16.	1.	
36000.	115.	46.	13.	11.	1.	
38000.	48.	27.	10.	9.	1.	
40000.	17.	17.	6.	6.	1.	
42000.	4.	11.	5.	4.	1.	
44000.	2.	5.	4.	4.	2.	
46000.	0.	0.	0.	0.	0.	
48000.	0.	0.	0.	0.	0.	
50000.	0.	0.	0.	0.	0.	

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

WINTER

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90
6000.	376.	0.	2.	30.	33.	16.	10.	4.	3.	1.	2.
8000.	375.	0.	4.	32.	27.	15.	9.	5.	4.	2.	3.
10000.	375.	2.	15.	29.	22.	10.	6.	5.	2.	4.	
12000.	371.	2.	21.	30.	19.	9.	4.	6.	3.	2.	3.
14000.	366.	2.	22.	34.	21.	8.	4.	3.	2.	2.	2.
16000.	359.	2.	25.	37.	19.	7.	4.	2.	2.	1.	0.
18000.	357.	2.	22.	42.	19.	8.	3.	2.	1.	0.	1.
20000.	351.	1.	16.	46.	21.	8.	3.	3.	1.	1.	0.
22000.	346.	2.	14.	45.	22.	8.	5.	3.	1.	1.	0.
24000.	339.	2.	14.	47.	17.	10.	5.	2.	1.	1.	0.
26000.	327.	5.	19.	43.	18.	8.	4.	2.	1.	0.	0.
28000.	280.	12.	23.	35.	16.	9.	4.	0.	0.	0.	0.
30000.	199.	28.	32.	20.	11.	5.					
32000.	98.	49.	34.	11.	3.						
34000.	31.	65.	26.	10.	0.						
36000.	9.	78.	22.	0.	0.						
38000.	3.	100.	0.	0.	0.						
40000.	0.	0.	0.	0.	0.						
42000.	0.	0.	0.	0.	0.						
44000.	0.	0.	0.	0.	0.						
46000.	0.	0.	0.	0.	0.						
48000.	0.	0.	0.	0.	0.						
50000.	0.	0.	0.	0.	0.						

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

SPRING

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100
6000.	425.	0.	22.	36.	21.	12.	6.	2.	0.	0.	0.
8000.	424.	0.	16.	34.	28.	12.	7.	2.	0.	0.	0.
10000.	421.	0.	13.	33.	28.	16.	6.	3.	0.	0.	0.
12000.	420.	0.	17.	30.	24.	18.	7.	2.	0.	0.	0.
14000.	418.	1.	22.	27.	22.	16.	7.	4.	1.	0.	0.
16000.	412.	1.	25.	27.	20.	11.	8.	5.	1.	0.	0.
18000.	413.	2.	23.	31.	21.	10.	6.	4.	2.	0.	0.
20000.	408.	1.	22.	34.	20.	10.	6.	3.	1.	0.	0.
22000.	406.	1.	19.	40.	18.	9.	6.	3.	1.	0.	0.
24000.	402.	0.	17.	42.	18.	10.	6.	4.	1.	0.	0.
26000.	390.	2.	17.	42.	17.	11.	8.	2.	1.	0.	0.
28000.	370.	5.	18.	36.	18.	14.	7.	4.	0.	0.	0.
30000.	332.	11.	32.	23.	18.	11.	4.	2.	0.	0.	0.
32000.	257.	28.	37.	17.	12.	4.	1.	0.	0.	0.	0.
34000.	152.	49.	35.	11.	4.	1.	0.	0.	0.	0.	0.
36000.	68.	74.	22.	4.	0.	0.	5.	0.	0.	0.	0.
38000.	20.	90.	5.	0.	0.	0.	0.	0.	0.	0.	0.
40000.	1.	0.	100.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	1.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

SUMMER

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE HSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)								
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90
6000.	435.	0.	6.	10.	19.	29.	22.	11.	2.	0.
8000.	435.	0.	4.	9.	16.	29.	25.	11.	4.	1.
10000.	435.	0.	3.	9.	13.	26.	25.	15.	6.	1.
12000.	435.	0.	3.	6.	13.	21.	26.	14.	4.	2.
14000.	434.	0.	4.	6.	11.	19.	27.	16.	10.	3.
16000.	431.	0.	5.	6.	9.	16.	23.	19.	10.	6.
18000.	428.	0.	8.	9.	12.	14.	17.	17.	11.	4.
20000.	425.	1.	10.	13.	17.	20.	12.	10.	8.	5.
22000.	422.	1.	12.	19.	25.	16.	11.	7.	4.	3.
24000.	422.	1.	14.	24.	27.	16.	9.	5.	2.	1.
26000.	417.	1.	12.	27.	29.	16.	10.	2.	1.	1.
28000.	409.	2.	11.	29.	30.	16.	7.	2.	1.	0.
30000.	399.	2.	9.	30.	56.	14.	4.	2.	0.	0.
32000.	382.	3.	11.	26.	41.	11.	3.	1.	0.	0.
34000.	358.	10.	17.	27.	32.	11.	0.	0.	0.	0.
36000.	266.	21.	30.	32.	12.	5.	0.	0.	0.	0.
38000.	170.	38.	46.	14.	2.	0.	0.	0.	0.	0.
40000.	82.	70.	29.	1.	0.	0.	0.	0.	0.	0.
42000.	20.	90.	10.	0.	0.	0.	0.	0.	0.	0.
44000.	3.	100.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR RELATIVE HUMIDITIES

AT SELECTED LEVELS (IN PER CENT)

JALLEN SITE (JAL)

PERIOD OF RECORD 1962-1967

FALL

RELATIVE HUMIDITY (PER CENT)

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	RELATIVE HUMIDITY (PER CENT)									
		< 10	≥ 10 < 20	≥ 20 < 30	≥ 30 < 40	≥ 40 < 50	≥ 50 < 60	≥ 60 < 70	≥ 70 < 80	≥ 80 < 90	≥ 90 < 100
6000.	426.	0.	1.	10.	39.	22.	15.	8.	2.	2.	2.
8000.	427.	0.	2.	12.	32.	20.	17.	8.	4.	2.	3.
10000.	425.	0.	4.	14.	29.	17.	15.	8.	6.	3.	3.
12000.	423.	1.	9.	19.	22.	16.	14.	7.	5.	3.	4.
14000.	416.	2.	11.	25.	21.	13.	11.	9.	4.	2.	3.
16000.	408.	3.	11.	32.	20.	11.	10.	5.	4.	1.	3.
18000.	401.	2.	13.	36.	23.	11.	6.	3.	3.	1.	2.
20000.	396.	1.	12.	42.	23.	9.	5.	3.	3.	3.	1.
22000.	395.	2.	12.	39.	27.	8.	5.	3.	3.	2.	1.
24000.	394.	2.	10.	39.	29.	8.	4.	2.	4.	1.	0.
26000.	393.	2.	9.	27.	32.	8.	5.	2.	3.	1.	0.
28000.	383.	1.	8.	38.	31.	8.	7.	4.	2.	1.	0.
30000.	370.	2.	11.	36.	32.	9.	6.	3.	2.	1.	0.
32000.	331.	12.	23.	27.	23.	12.	6.	0.	0.	0.	0.
34000.	237.	29.	30.	21.	12.	3.	0.	0.	0.	0.	0.
36000.	115.	45.	29.	19.	3.	0.	0.	0.	0.	0.	0.
38000.	48.	60.	29.	10.	0.	0.	0.	0.	0.	0.	0.
40000.	17.	82.	18.	0.	0.	0.	0.	0.	0.	0.	0.
42000.	4.	75.	25.	0.	0.	0.	0.	0.	0.	0.	0.
44000.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

SECTION VI

UPPER AIR INDEX OF REFRACTION DATA

A. By Months

1. Mean and Extreme Upper Air Indexes of
Refraction at Selected Levels ----- 196

B. By Seasons

1. Mean and Extreme Upper Air Indexes of
Refraction at Selected Levels ----- 208

MEAN AND EXTREMES OF UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JAILEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	JANUARY		GRADIENT	MINIMUM
		MAXIMUM	MEAN		
6000.	116.	1.000258	1.000242	0.	1.000235
8000.	115.	1.000242	1.000225	-0.000017	1.000213
10000.	117.	1.000223	1.000209	-0.000016	1.000198
12000.	116.	1.000203	1.000194	-0.000015	1.000186
14000.	116.	1.000188	1.000181	-0.000014	1.000175
15000.	115.	1.000181	1.000175	-0.000006	1.000169
16000.	115.	1.000175	1.000169	-0.000006	1.000164
18000.	116.	1.000165	1.000157	-0.000011	1.000153
20000.	115.	1.000152	1.000147	-0.000010	1.000144
25000.	115.	1.000126	1.000124	-0.000023	1.000122
30000.	110.	1.000106	1.000104	-0.000020	1.000098
35000.	103.	1.000089	1.000085	-0.000019	1.000078
40000.	102.	1.000073	1.000068	-0.000017	1.000062
45000.	95.	1.000059	1.000054	-0.000014	1.000050
50000.	64.	1.000046	1.000043	-0.000011	1.000040
55000.	69.	1.000036	1.000034	-0.000009	1.000032
60000.	56.	1.000028	1.000026	-0.000008	1.000025
65000.	50.	1.000021	1.000020	-0.000006	1.000020
70000.	44.	1.000017	1.000016	-0.000004	1.000015
75000.	38.	1.000013	1.000012	-0.000004	1.000012
80000.	37.	1.000010	1.000009	-0.000003	1.000009
85000.	35.	1.000008	1.000007	-0.000002	1.000007
90000.	31.	1.000006	1.000006	-0.000002	1.000005
95000.	23.	1.000005	1.000005	-0.000001	1.000004
100000.	15.	1.000004	1.000004	-0.000001	1.000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	FEBRUARY		GRADIENT	MINIMUM
		MAXIMUM	MEAN		
6000.	112.	1.000265	1.000241	0.	1.000232
8000.	112.	1.000243	1.000225	-0.000016	1.000218
10000.	112.	1.000221	1.000210	-0.000016	1.000202
12000.	112.	1.000205	1.000195	-0.000015	1.000188
14000.	112.	1.000188	1.000181	-0.000014	1.000175
15000.	111.	1.000183	1.000174	-0.000006	1.000170
16000.	112.	1.000178	1.000169	-0.000006	1.000164
18000.	111.	1.000163	1.000157	-0.000011	1.000154
20000.	111.	1.000151	1.000147	-0.000010	1.000145
25000.	107.	1.000126	1.000124	-0.000023	1.000121
30000.	105.	1.000106	1.000104	-0.000020	1.000099
35000.	100.	1.000089	1.000086	-0.000018	1.000078
40000.	93.	1.000073	1.000068	-0.000018	1.000062
45000.	90.	1.000058	1.000054	-0.000014	1.000050
50000.	74.	1.000047	1.000043	-0.000011	1.000040
55000.	64.	1.000037	1.000034	-0.000009	1.000032
60000.	57.	1.000029	1.000026	-0.000006	1.000029
65000.	55.	1.000022	1.000020	-0.000006	1.000019
70000.	54.	1.000017	1.000016	-0.000005	1.000015
75000.	50.	1.000013	1.000012	-0.000004	1.000012
80000.	47.	1.000010	1.000009	-0.000002	1.000009
85000.	44.	1.000008	1.000007	-0.000002	1.000007
90000.	39.	1.000006	1.000006	-0.000001	1.000005
95000.	30.	1.000005	1.000005	-0.000001	1.000004
100000.	24.	1.000004	1.000004	-0.000001	1.000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

MARCH

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MARCH		MINIMUM GRADIENT
		MAXIMUM	MEAN	
6000.	161.	1.000262	1.0000240	0.
8000.	161.	1.000245	1.0000224	-0.000016
10000.	160.	1.000225	1.0000209	-0.000015
12000.	159.	1.000202	1.0000195	-0.000015
14000.	159.	1.000188	1.0000181	-0.000014
15000.	156.	1.000181	1.0000175	-0.000006
16000.	160.	1.000175	1.0000169	-0.000006
18000.	159.	1.000164	1.0000157	-0.000012
20000.	156.	1.000151	1.0000147	-0.000010
25000.	152.	1.000126	1.0000124	-0.000023
30000.	153.	1.000106	1.0000104	-0.000020
35000.	147.	1.000089	1.000086	-0.000018
40000.	145.	1.000073	1.000069	-0.000017
45000.	132.	1.000059	1.000054	-0.000015
50000.	129.	1.000046	1.000043	-0.000011
55000.	112.	1.000036	1.000034	-0.000010
60000.	102.	1.000028	1.000026	-0.000007
65000.	88.	1.000021	1.000020	-0.000006
70000.	85.	1.000017	1.000016	-0.000005
75000.	69.	1.000013	1.000012	-0.000003
80000.	58.	1.000010	1.000009	-0.000003
85000.	48.	1.000008	1.000007	-0.000002
90000.	44.	1.000006	1.000006	-0.000002
95000.	40.	1.000005	1.000005	-0.000001
100000.	30.	1.000004	1.000004	-0.000001

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

APRIL

GEOMETRIC ALTITUDE
 MSL FEET

TOTAL
 OBSERVATIONS

MINIMUM

MEAN

GRADIENT

MAXIMUM

6000.	139.	1.000262	1.000240	0.
8000.	137.	1.000242	1.000224	-0.000016
10000.	137.	1.000232	1.000209	-0.000015
12000.	137.	1.000212	1.000195	-0.000014
14000.	137.	1.000194	1.000181	-0.000014
15000.	136.	1.000189	1.000174	-0.000014
16000.	136.	1.000182	1.000169	-0.000014
18000.	137.	1.000165	1.000157	-0.000012
20000.	137.	1.000153	1.000147	-0.000010
25000.	136.	1.000127	1.000124	-0.000023
30000.	135.	1.000106	1.000104	-0.000020
35000.	130.	1.000089	1.000087	-0.000017
40000.	122.	1.000074	1.000070	-0.000016
45000.	115.	1.000059	1.000055	-0.000015
50000.	110.	1.000047	1.000044	-0.000011
55000.	103.	1.000036	1.000034	-0.000010
60000.	93.	1.000028	1.000027	-0.000009
65000.	84.	1.000022	1.000021	-0.000006
70000.	82.	1.000017	1.000016	-0.000005
75000.	78.	1.000013	1.000012	-0.000003
80000.	75.	1.000010	1.000009	-0.000003
85000.	70.	1.000008	1.000008	-0.000002
90000.	64.	1.000006	1.000006	-0.000002
95000.	57.	1.000005	1.000005	-0.000001
100000.	41.	1.000004	1.000004	-0.000001

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

MAY

GEOMETRIC ALTITUDE
 MSL FEET

MAXIMUM

MINIMUM

	TOTAL OBSERVATIONS	MEAN	GRADIENT	MINIMUM
6000.	127	1.000244	0.	1.000214
8000.	126	1.000223	-0.000017	1.000204
10000.	126	1.000232	-0.000016	1.000193
12000.	125	1.000216	-0.000015	1.000186
14000.	125	1.000202	-0.000014	1.000171
15000.	122	1.000193	-0.000014	1.000166
16000.	122	1.000185	-0.000013	1.000161
18000.	120	1.000171	-0.000012	1.000152
20000.	121	1.000157	-0.000011	1.000143
25000.	119	1.000127	-0.000024	1.000122
30000.	121	1.000106	-0.000020	1.000101
35000.	114	1.000089	-0.000017	1.000082
40000.	115	1.000074	-0.000015	1.000064
45000.	103	1.000061	-0.000015	1.000054
50000.	160	1.000047	-0.000012	1.000043
55000.	98	1.000037	-0.000010	1.000033
60000.	94	1.000029	-0.000008	1.000026
65000.	91	1.000022	-0.000006	1.000020
70000.	90	1.000017	-0.000005	1.000016
75000.	81	1.000013	-0.000003	1.000012
80000.	78	1.000010	-0.000003	1.000009
85000.	73	1.000008	-0.000002	1.000007
90000.	71	1.000006	-0.000002	1.000005
95000.	63	1.000005	-0.000001	1.000004
100000.	50	1.000004	-0.000001	1.000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

JUNE

GEOMETRIC ALTITUDE
 MSL FEET

TOTAL
 OBSERVATIONS

MAXIMUM

GRADIENT

MINIMUM

6000.	1.000286	1.000251	0.	1.000225
8000.	1.000266	1.000233	-0.000018	1.000208
10000.	1.000242	1.000216	-0.000017	1.000193
12000.	1.000223	1.000200	-0.000015	1.000183
14000.	1.000206	1.000186	-0.000014	1.000174
15000.	1.000195	1.000179	-0.000007	1.000170
16000.	1.000187	1.000173	-0.000007	1.000164
18000.	1.000171	1.000140	-0.000013	1.000151
20000.	1.000157	1.000148	-0.000012	1.000141
22000.	1.000127	1.000124	-0.000024	1.000119
24000.	1.000106	1.000104	-0.000019	1.000101
25000.	1.000098	1.000087	-0.000017	1.000084
40000.	1.000074	1.000072	-0.000015	1.000067
45000.	1.000061	1.000058	-0.000014	1.000056
50000.	1.000050	1.000047	-0.000012	1.000044
55000.	1.000039	1.000036	-0.000010	1.000035
60000.	1.000029	1.000028	-0.000008	1.000027
65000.	1.000022	1.000021	-0.000006	1.000021
70000.	1.000017	1.000014	-0.000005	1.000016
75000.	1.000013	1.000013	-0.000004	1.000012
80000.	1.000010	1.000010	-0.000003	1.000009
85000.	1.000008	1.000008	-0.000002	1.000007
90000.	1.000006	1.000006	-0.000002	1.000006
95000.	1.000005	1.000005	-0.000001	1.000004
100000.	1.000004	1.000004	-0.000001	1.000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JALI)
 PERIOD OF RECORD 1962-1967

JULY

GEOMETRIC ALTITUDE
 HSL FEET

TOTAL
 OBSERVATIONS

MAXIMUM

MEAN

MINIMUM

			GRADIENT	
6000.	149.	1.000268	0.	
8000.	147.	1.000266	-0.00020	
10000.	150.	1.000245	-0.00005	
12000.	150.	1.000229	-0.00015	
14000.	150.	1.000211	1.000190	
15000.	141.	1.000195	-0.00017	
16000.	149.	1.000187	-0.00009	
18000.	146.	1.000180	-0.00006	
20000.	146.	1.000165	-0.00014	
25000.	139.	1.000160	-0.00013	
30000.	145.	1.000152	-0.000122	
35000.	132.	1.000129	-0.000028	
40000.	137.	1.000124	-0.000021	
45000.	121.	1.000106	-0.000021	
50000.	117.	1.000104	-0.000017	
55000.	103.	1.000098	-0.000014	
60000.	101.	1.000074	-0.000014	
65000.	89.	1.000062	-0.000013	
70000.	89.	1.000050	-0.000013	
75000.	103.	1.000040	-0.000037	
80000.	101.	1.000030	-0.000028	
85000.	89.	1.000022	-0.000022	
90000.	89.	1.000017	-0.000017	
95000.	79.	1.000013	-0.000013	
100000.	81.	1.000011	-0.000010	
	70.	1.000008	-0.000008	
	69.	1.000007	-0.000006	
	57.	1.000005	-0.000005	
	57.	1.000004	-0.000004	
		1.000004	-0.000003	

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

AUGUST

GEOMETRIC ALTITUDE
 MSL FEET

	TOTAL OBSERVATIONS	MAXIMUM	MEAN	GRADIENT	MINIMUM
6000.	157.	1.000289	1.000268	0.	1.000234
8000.	157.	1.000266	1.000248	-0.000021	1.000220
10000.	157.	1.000247	1.000228	-0.000019	1.000210
12000.	157.	1.000228	1.000211	-0.000018	1.000195
14000.	157.	1.000211	1.000194	-0.000017	1.000176
15000.	151.	1.000200	1.000186	-0.000007	1.000171
16000.	156.	1.000191	1.000179	-0.000008	1.000166
18000.	156.	1.000175	1.000165	-0.000014	1.000155
20000.	156.	1.000161	1.000151	-0.000013	1.000144
25000.	149.	1.000129	1.000124	-0.000027	1.090121
30000.	152.	1.000106	1.000104	-0.000020	1.000102
35000.	144.	1.000089	1.000087	-0.000017	1.000086
40000.	145.	1.000074	1.000072	-0.000015	1.000072
45000.	134.	1.000061	1.000059	-0.000013	1.000058
50000.	132.	1.000050	1.000048	-0.000011	1.000046
55000.	119.	1.000040	1.000037	-0.000011	1.000036
60000.	110.	1.000030	1.000028	-0.000009	1.000027
65000.	96.	1.000022	1.000022	-0.000006	1.000021
70000.	93.	1.000017	1.000016	-0.000016	1.000016
75000.	85.	1.000013	1.000013	-0.000012	1.000012
80000.	80.	1.000011	1.000010	-0.000010	1.000010
85000.	69.	1.000008	1.000008	-0.000007	1.000007
90000.	63.	1.000007	1.000006	-0.000006	1.000006
95000.	60.	1.000005	1.000005	-0.000004	1.000004
100000.	55.	1.000004	1.000003	-0.000003	1.000003

W.M.L.D.W.

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SETTE (JAL)
 PERIOD OF RECORD 1962-1967

SEPTEMBER

GEOGRAPHIC ALTITUDE
 MSL FEET

TOTAL
 OBSERVATIONS

GRADIENT

MINIMUM

6000.	121.	1.000296	0-	1.000234
8000.	123.	1.000269	-0.000020	1.000224
10000.	123.	1.000246	-0.000019	1.000210
12000.	121.	1.000225	-0.000018	1.000188
14000.	121.	1.000205	-0.000017	1.000176
15000.	117.	1.000196	-0.000017	1.000176
16000.	121.	1.000188	-0.000017	1.000168
18000.	120.	1.000173	-0.000017	1.000161
20000.	122.	1.000158	-0.000017	1.000150
25000.	116.	1.000129	-0.000017	1.000141
30000.	120.	1.000106	-0.000017	1.000121
35000.	115.	1.000089	-0.000017	1.000121
40000.	114.	1.000074	-0.000017	1.000101
45000.	106.	1.000061	-0.000017	1.000093
50000.	104.	1.000050	-0.000017	1.000067
55000.	91.	1.000038	-0.000017	1.000055
60000.	82.	1.000029	-0.000017	1.000044
65000.	76.	1.000022	-0.000017	1.000034
70000.	73.	1.000017	-0.000017	1.000024
75000.	72.	1.000013	-0.000017	1.000027
80000.	71.	1.000010	-0.000017	1.000012
85000.	69.	1.000008	-0.000017	1.000009
90000.	65.	1.000006	-0.000017	1.000006
95000.	62.	1.000005	-0.000017	1.000004
100000.	55.	1.000004	-0.000017	1.000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JALL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	OCTOBER		MINIMUM
		MAXIMUM	MEAN	
6000.	143.	1.000264	1.000250	0.
8000.	144.	1.000262	1.000233	-0.000018
10000.	145.	1.000261	1.000216	-0.000017
12000.	145.	1.000222	1.000158	-0.000017
14000.	142.	1.000201	1.000182	-0.000016
15000.	139.	1.000158	1.000175	-0.000017
16000.	142.	1.000180	1.000169	-0.000017
18000.	141.	1.000165	1.000157	-0.000012
20000.	141.	1.000153	1.000147	-0.000010
25000.	137.	1.000128	1.000124	-0.000023
30000.	137.	1.000106	1.000104	-0.000019
35000.	133.	1.000089	1.000097	-0.000017
40000.	132.	1.000074	1.000071	-0.000016
45000.	117.	1.000060	1.000057	-0.000014
50000.	108.	1.000048	1.000046	-0.000011
55000.	94.	1.000038	1.000036	-0.000010
60000.	89.	1.000029	1.000027	-0.000008
65000.	82.	1.000022	1.000021	-0.000005
70000.	80.	1.000017	1.000016	-0.000005
75000.	75.	1.000013	1.000012	-0.000004
80000.	71.	1.000010	1.000009	-0.000003
85000.	57.	1.000008	1.000007	-0.000002
90000.	53.	1.000006	1.000006	-0.000002
95000.	46.	1.000005	1.000005	-0.000001
100000.	33.	1.000004	1.000003	-0.000001

BY A. W. HORN

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

NOVEMBER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	MAXIMUM	MEAN	GRADIENT	MINIMUM
6000.	159.	1.000277	1.000247	0.	1.0000236
8000.	160.	1.000253	1.000229	-0.000018	1.0000217
10000.	159.	1.000236	1.000212	-0.000017	1.0000201
12000.	159.	1.000217	1.000196	-0.000016	1.0000186
14000.	160.	1.000200	1.000182	-0.000014	1.0000173
15000.	157.	1.000192	1.000175	-0.000006	1.0000167
16000.	157.	1.000184	1.000169	-0.000006	1.0000163
18000.	157.	1.000167	1.000157	-0.000012	1.0000153
20000.	158.	1.000156	1.000147	-0.000013	1.0000144
25000.	156.	1.000127	1.000124	-0.000023	1.0000120
30000.	154.	1.000106	1.000104	-0.000020	1.0000100
35000.	138.	1.000086	1.000087	-0.000017	1.0000080
40000.	126.	1.000074	1.000071	-0.000015	1.0000065
45000.	111.	1.000061	1.000057	-0.000014	1.0000053
50000.	101.	1.000049	1.000045	-0.000012	1.0000041
55000.	86.	1.000038	1.000035	-0.000010	1.0000033
60000.	78.	1.000029	1.000027	-0.000008	1.0000026
65000.	74.	1.000022	1.000021	-0.000006	1.0000020
70000.	62.	1.000017	1.000016	-0.000005	1.0000015
75000.	54.	1.000013	1.000012	-0.000004	1.0000012
80000.	50.	1.000010	1.000010	-0.000003	1.0000009
85000.	44.	1.000008	1.000008	-0.000002	1.0000007
90000.	41.	1.000006	1.000006	-0.000002	1.0000005
95000.	41.	1.000005	1.000005	-0.000001	1.0000004
100000.	34.	1.000004	1.000004	-0.000001	1.0000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	DECEMBER		GRADIENT	MINIMUM
		MAXIMUM	MEAN		
6000.	147.	1.000268	1.000247	0.	1.000235
8000.	148.	1.000250	1.000229	-0.000019	1.000216
10000.	149.	1.000230	1.000211	-0.000017	1.000201
12000.	149.	1.000213	1.000195	-0.000016	1.000185
14000.	149.	1.000195	1.000181	-0.000014	1.000174
15000.	149.	1.000187	1.000174	-0.000007	1.000169
16000.	148.	1.000177	1.000168	-0.000006	1.000164
18000.	147.	1.000166	1.000157	-0.000012	1.000153
20000.	146.	1.000154	1.000147	-0.000010	1.000142
25000.	138.	1.000127	1.000124	-0.000023	1.000120
30000.	134.	1.000106	1.000104	-0.000020	1.000100
35000.	126.	1.000088	1.000086	-0.000018	1.000081
40000.	119.	1.000073	1.000070	-0.000016	1.000066
45000.	106.	1.000059	1.000055	-0.000014	1.000053
50000.	92.	1.000047	1.000044	-0.000011	1.000042
55000.	81.	1.000036	1.000034	-0.000010	1.000033
60000.	73.	1.000028	1.000027	-0.000009	1.000026
65000.	65.	1.000021	1.000021	-0.000006	1.000020
70000.	63.	1.000017	1.000016	-0.000005	1.000015
75000.	61.	1.000013	1.000012	-0.000003	1.000012
80000.	57.	1.000010	1.000010	-0.000003	1.000009
85000.	53.	1.000008	1.000008	-0.000002	1.000007
90000.	52.	1.000006	1.000006	-0.000002	1.000005
95000.	42.	1.000005	1.000005	-0.000001	1.000004
100000.	37.	1.000004	1.000004	-0.000001	1.000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

WINTER

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	WINTER	
		MEAN	MINIMUM
6000.	375.	1.000266	0.
8000.	375.	1.000250	-0.000017
10000.	378.	1.000230	-0.000017
12000.	377.	1.000213	-0.000015
14000.	377.	1.000195	-0.000015
15000.	375.	1.000187	-0.000014
16000.	375.	1.000178	-0.000014
18000.	374.	1.000166	-0.000014
20000.	372.	1.000154	-0.000014
25000.	360.	1.000127	-0.000013
30000.	349.	1.000106	-0.000013
35000.	329.	1.000089	-0.000013
40000.	314.	1.000073	-0.000013
45000.	291.	1.000059	-0.000014
50000.	250.	1.000047	-0.000014
55000.	214.	1.000037	-0.000015
60000.	186.	1.000029	-0.000015
65000.	170.	1.000022	-0.000015
70000.	161.	1.000017	-0.000015
75000.	149.	1.000013	-0.000015
80000.	141.	1.000010	-0.000015
85000.	132.	1.000008	-0.000015
90000.	122.	1.000006	-0.000015
95000.	95.	1.000005	-0.000015
100000.	76.	1.000004	-0.000015

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE MSL FEET	TOTAL OBSERVATIONS	SPRING		GRADIENT	MINIMUM
		MAXIMUM	MEAN		
6000.	427.	1.000279	1.000241	0.	1.000214
8000.	424.	1.000255	1.000225	-0.000016	1.000204
10000.	423.	1.000232	1.000210	-0.000015	1.000193
12000.	421.	1.000216	1.000195	-0.000015	1.000186
14000.	421.	1.000202	1.000182	-0.000014	1.000171
15000.	414.	1.000193	1.000175	-0.000006	1.000166
16000.	418.	1.000185	1.000169	-0.000006	1.000161
18000.	416.	1.000171	1.000158	-0.000012	1.000152
20000.	414.	1.000157	1.000147	-0.000010	1.000143
25000.	407.	1.000127	1.000124	-0.000023	1.000121
30000.	409.	1.000106	1.000104	-0.002323	1.000099
35000.	391.	1.000089	1.000086	-0.000018	1.000078
40000.	382.	1.000074	1.000070	-0.000016	1.000062
45000.	350.	1.000061	1.000055	-0.000015	1.000051
50000.	339.	1.000047	1.000044	-0.000011	1.000040
55000.	313.	1.000037	1.000034	-0.000010	1.000032
60000.	289.	1.000029	1.000027	-0.000008	1.000025
65000.	263.	1.000022	1.000021	-0.000006	1.000020
70000.	257.	1.000017	1.000016	-0.000005	1.000015
75000.	228.	1.000013	1.000012	-0.000003	1.000012
80000.	211.	1.000010	1.000009	-0.000003	1.000009
85000.	191.	1.000008	1.000007	-0.000002	1.000007
90000.	179.	1.000006	1.000006	-0.000002	1.000005
95000.	160.	1.000005	1.000005	-0.000001	1.000004
100000.	121.	1.000004	1.000004	-0.000001	1.000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY SEASONS
 JAGALEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

SUMMER

GEOMETRIC ALTITUDE
 MSL FEET

TOTAL
 OBSERVATIONS

MAXIMUM

MINIMUM

GRADIENT

MEAN

6000.	434.	1.000289	1.000263	0.	1.000225
8000.	430.	1.000266	1.000243	-0.000020	1.000208
10000.	433.	1.000247	1.000225	-0.000019	1.000193
12000.	433.	1.000228	1.000208	-0.000017	1.000193
14000.	432.	1.000211	1.000192	-0.000016	1.000174
15000.	414.	1.000201	1.000185	-0.000007	1.000170
16000.	429.	1.000191	1.000177	-0.000007	1.000164
18000.	425.	1.000175	1.000163	-0.000014	1.000151
20000.	425.	1.000161	1.000150	-0.000013	1.000141
25000.	410.	1.000129	1.000124	-0.000026	1.000119
30000.	415.	1.000106	1.000104	-0.000020	1.000101
35000.	387.	1.000089	1.000087	-0.000017	1.000084
40000.	396.	1.000074	1.000072	-0.000015	1.000067
45000.	365.	1.000067	1.000059	-0.000013	1.000056
50000.	353.	1.000055	1.000048	-0.000011	1.000044
55000.	320.	1.000040	1.000037	-0.000011	1.000035
60000.	307.	1.000030	1.000028	-0.000009	1.000027
65000.	279.	1.000022	1.000022	-0.000006	1.000021
70000.	273.	1.000017	1.000016	-0.000005	1.000016
75000.	252.	1.000013	1.000013	-0.000004	1.000012
80000.	239.	1.000011	1.000010	-0.000003	1.000009
85000.	212.	1.000008	1.000008	-0.000002	1.000007
90000.	197.	1.000007	1.000006	-0.000002	1.000006
95000.	175.	1.000005	1.000005	-0.000001	1.000004
100000.	165.	1.000004	1.000004	-0.000001	1.000003

MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY SEASONS
 JALLEN SITE (JAL)
 PERIOD OF RECORD 1962-1967

GEOOMETRIC ALTITUDE
 MSL FEET

FALL

TOTAL
 OBSERVATIONS

MINIMUM

GRADIENT

MEAN

MAXIMUM

MINIMUM

6000.	423.	1.000290	1.000253	0.
8000.	427.	1.000269	1.000235	-0.000018
10000.	427.	1.000243	1.000217	-0.000018
12000.	425.	1.000225	1.000200	-0.000017
14000.	423.	1.000205	1.000184	-0.000016
15000.	413.	1.000196	1.000177	-0.000007
16000.	420.	1.000188	1.000171	-0.000007
18000.	418.	1.000173	1.000158	-0.000013
20000.	421.	1.000158	1.000147	-0.000011
25000.	409.	1.000129	1.000124	-0.000024
30000.	411.	1.000106	1.000104	-0.000020
35000.	386.	1.000089	1.000087	-0.000017
40000.	372.	1.000074	1.000071	-0.000015
45000.	334.	1.000061	1.000058	-0.000014
50000.	313.	1.000050	1.000046	-0.000011
55000.	271.	1.000038	1.000036	-0.000010
60000.	249.	1.000029	1.000028	-0.000008
65000.	232.	1.000022	1.000021	-0.000006
70000.	215.	1.000017	1.000016	-0.000005
75000.	201.	1.000013	1.000013	-0.000004
80000.	192.	1.000010	1.000010	-0.000003
85000.	170.	1.000008	1.000008	-0.000002
90000.	159.	1.000006	1.000006	-0.000002
95000.	149.	1.000005	1.000005	-0.000001
100000.	122.	1.000004	1.000004	-0.000001

FREEZING LEVEL

For this report the freezing level is defined as any altitude at which the temperature is 0° centigrade. Multiple freezing levels may occur on a single rawinsonde observation. Section VII presents data based on all freezing level occurrences.

SECTION VII

UPPER AIR FREEZING LEVEL DATA

A. By Months And By Seasons

1. Mean and Extreme Heights (Feet MSL) of the Freezing Level ----- 218
2. Relative Frequency Distribution of the Freezing Level (In Per Cent)----- 214

MEAN AND EXTREME HEIGHTS (FEET MSL) OF THE FREEZING LEVEL BY MONTHS AND BY SEASONS

JAILEN SITE (JAL)

PERIOD OF RECORD 1962-1967

MONTH	TOTAL RAWINSONDE ASCENSIONS	MAXIMUM	MEAN	MINIMUM
JANUARY	119	13700	8300	4100
FEBRUARY	113	13500	8400	4100
MARCH	162	14200	9900	4200
APRIL	142	15100	11500	7300
MAY	129	16400	13200	7700
JUNE	128	16700	14900	11300
JULY	150	17600	15900	13600
AUGUST	161	17200	15500	13300
SEPTEMBER	123	17000	14600	10300
OCTOBER	145	16500	13400	7100
NOVEMBER	165	15600	11800	4200
DECEMBER	149	14800	9500	4100
SEASON				
WINTER	381	14800	8900	4100
SPRING	433	16400	11400	4200
SUMMER	439	17600	15500	11500
FALL	433	17000	13100	4200

RELATIVE FREQUENCY DISTRIBUTION OF THE FREEZING LEVEL BY MONTHS AND BY SEASONS (EX. PERCENT)

JALLEN SITE (JALI)

PERIOD OF RECORD 1962-1967

GEOMETRIC ALTITUDE ASL FEET

MONTH	TOTAL RAWINSONDE ASCENSIONS	GEOMETRIC ALTITUDE ASL FEET								SEASON						
		$\geq 4K$	$\geq 5K$	$\geq 6K$	$\geq 7K$	$< 8K$	$< 9K$	$\geq 10K$	$< 12K$	$\geq 12K$	$\geq 13K$	$\geq 14K$	$\geq 15K$	$\geq 16K$	$\geq 17K$	$\geq 18K$
JANUARY	119	16	9	11	12	5	11	13	12	9	2	2	0	0	0	0
FEBRUARY	113	11	7	16	9	15	11	16	9	5	2	2	0	0	0	0
MARCH	162	5	4	5	7	10	15	13	20	14	4	2	0	0	0	0
APRIL	142	0	0	0	0	1	6	6	22	24	20	4	2	0	0	0
MAY	129	0	0	0	0	0	1	0	4	5	9	12	2	0	0	0
JUNE	128	0	0	0	0	0	0	0	0	0	2	3	3	1	0	0
JULY	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUGUST	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEPTEMBER	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCTOBER	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOVEMBER	165	1	1	1	2	2	3	5	7	11	21	27	21	12	4	0
DECEMBER	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WINTER	301	11	7	12	9	11	13	17	14	11	22	28	20	15	9	3
SPRING	433	2	2	2	3	0	0	0	0	0	0	0	0	0	0	0
SUMMER	439	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FALL	433	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

FIGURE I

MAP OF RADIOSONDE SITES

AT

WHITE SANDS MISSILE RANGE ----- 215



FIGURE I

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TABLE I

FREQUENCY DISTRIBUTION OF
UPPER AIR SOUNDINGS BY HOUR -----216

FREQUENCY DISTRIBUTION OF UPPER AIR SOUNDINGS BY HOURS AND MONTHS
 PERIOD OF RECORD 1962-1967
 JALLEN SITE (JAL)

HOUR (HST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL BY HOURS
1	1	1	2	0	1	0	2	3	4	9	0	1	15
2	1	1	0	0	0	3	1	4	4	1	0	0	17
3	0	0	1	5	2	1	3	10	2	5	3	3	38
4	0	1	1	2	4	4	4	3	3	2	1	0	33
5	1	2	0	2	5	9	3	10	12	7	5	1	34
6	2	3	8	7	7	7	4	7	11	7	1	1	57
7	3	7	7	11	6	12	9	10	10	7	4	4	76
8	6	6	13	13	21	18	13	16	22	9	14	21	135
9	6	12	23	17	11	19	15	15	13	9	11	20	185
10	9	10	19	12	10	9	17	13	6	10	18	15	165
11	9	10	15	13	11	6	7	15	10	9	11	10	147
12	13	15	13	11	11	6	7	13	12	15	14	14	133
13	17	6	9	14	11	13	12	15	14	11	10	4	136
14	11	9	14	9	16	9	9	7	11	11	21	26	14
15	11	15	13	10	14	6	4	8	4	6	7	10	156
16	10	6	5	8	3	3	3	3	2	3	0	5	118
17	0	0	8	8	0	1	2	0	1	1	1	1	27
18	2	2	3	3	0	1	2	3	1	2	3	2	23
19	2	0	0	1	2	1	1	1	0	1	0	3	23
20	2	3	2	1	0	1	1	3	3	4	1	2	16
21	0	1	2	1	0	1	0	1	1	3	3	2	18
22	2	1	0	1	1	0	1	2	3	1	2	1	10
23	1	1	2	0	0	0	0	0	0	0	0	0	0
24	1	1	0	0	0	0	0	0	0	0	0	0	0
TOTAL BY MONTHS	119	113	162	142	129	128	150	161	123	145	165	147	1684

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13. ABSTRACT

A statistical analysis of upper air data is presented for Jallen Site, White Sands Missile Range, New Mexico. Atmospheric parameters covered, for the layer 6,000 to 100,000 feet above mean sea level, are: wind, temperature, pressure, density, moisture, index of refraction, and freezing level. This climatological information is based on the period of observation from 1962-1967. ()



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14. KEY WORDS	LINK A		LINK B		LINK C	
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